ENGINEERING NEWS-RECORD

rshall Ford Dam nears completion as preassembled bridge is pulled across spillway—See page 4.

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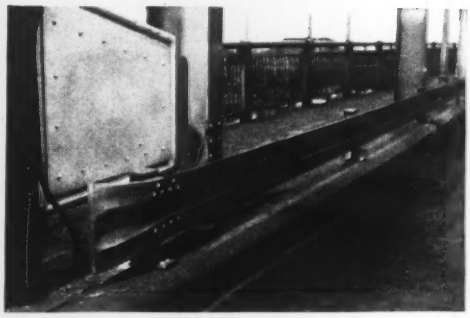

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • DECEMBER 11, 1941

Falsework suspected in Hartford Bridge collapse

Erection accident to 270-ft. plate girder span that took fifteen lives is being investigated as wreckage is removed from the Connecticut River.

With only a 48-ft. gap remaining to be closed in the first span of a 270-300-270-ft. continuous girder unit in the new Hartford, Conn., bridge, on Thursday of last week, the steelwork already in place suddenly collapsed into the Connecticut River. Ten men are known dead; five are missing, presumed to have been caught in the steel; and sixteen were injured, several of them seriously. W. J. (Jim) Ward, erection superintendent for the American Bridge Co., is among the dead.

The bridge, which is being built by the Connecticut State Highway Department, is a deck plate girder structure some 3,950 ft. long, and the 300-ft. span of the river crossing will be the longest girder span in the United States. The adjacent 270-ft. spans are equalled only by a span in the Main Avenue bridge in Cleveland.

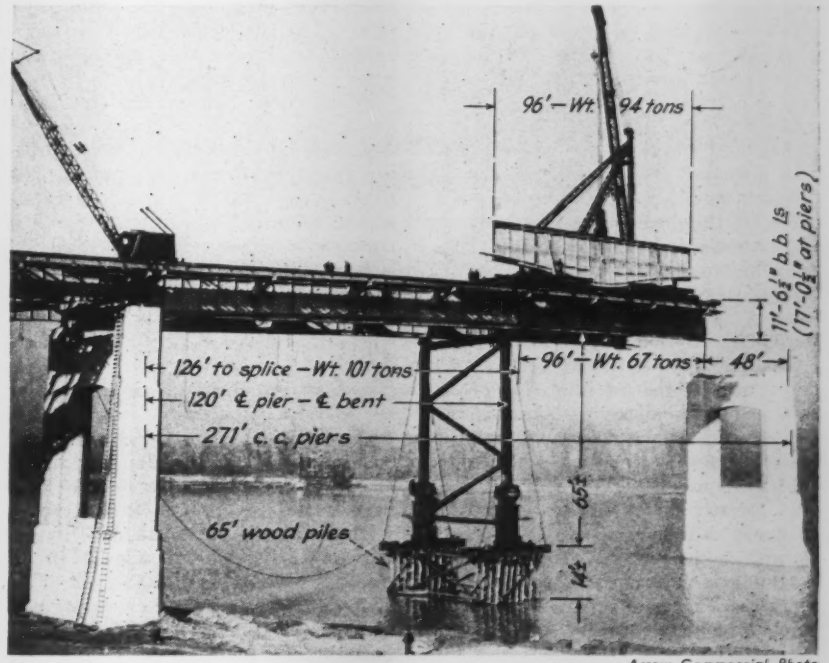
Failure of the falsework bent supporting the steel in the first 270-ft. span has been suggested as a possible cause of the collapse, a failure that could have been started by movement of the subsurface material similar to that which caused a section of a dike a few hundred feet upstream to subside last summer (ENR July 31, 1941, p. 142). Prof. Charles M. Spofford, of Massachusetts Institute of Technology and a member of the Boston consulting firm of Fay, Spofford & Thorndike, has been appointed by Governor Hurley of Connecticut to investigate the collapse. It is not expected that this report will be completed until the fallen steel is removed from the river. New steel has been ordered, but it is probable that the accident will delay completion of this much-needed highway link from two to four months.

At the time of the accident the approach steel on the Hartford side was in place, and the erection was proceeding over the first water span, a 270-ft. section of the 840-ft. continuous plate girder. A steel falsework bent, resting on timber piles driven to rock and located 120 ft. from the shore pier, supported the partly erected span. The first steel erected in this section had been two 126-ft. long girders weighing 101 tons each, set by a deck traveler from a location on the approach span. The traveler had then moved out on these girders and set a pair of 67-ton, 96-ft. long sections which extended beyond the bent as a cantilever. For the third step the traveler had advanced over this section until its front end was out about 85 ft. on the cantilever. Finally the third and closing girder section, 96 ft. long and weighing 94 tons, was rolled out on the span to a position alongside the traveler and about 60 ft. beyond the falsework bent, a position in which it remained for some two hours while the rigging for the lift was made ready and time taken for lunch.

Work was resumed after lunch. It is not known whether a strain was actually taken to lift the section from the car, but it is definitely established that the swing forward to put the section into position over the first river pier had not started. At any rate, in the words of witnesses, the falsework pier suddenly "kicked forward" and the 430 tons of bridge steel, the 176-ton traveler and thirty-two workmen went into the Connecticut River. The outer end of the steelwork apparently fell first, although the end tied to the pier fell almost vertically.

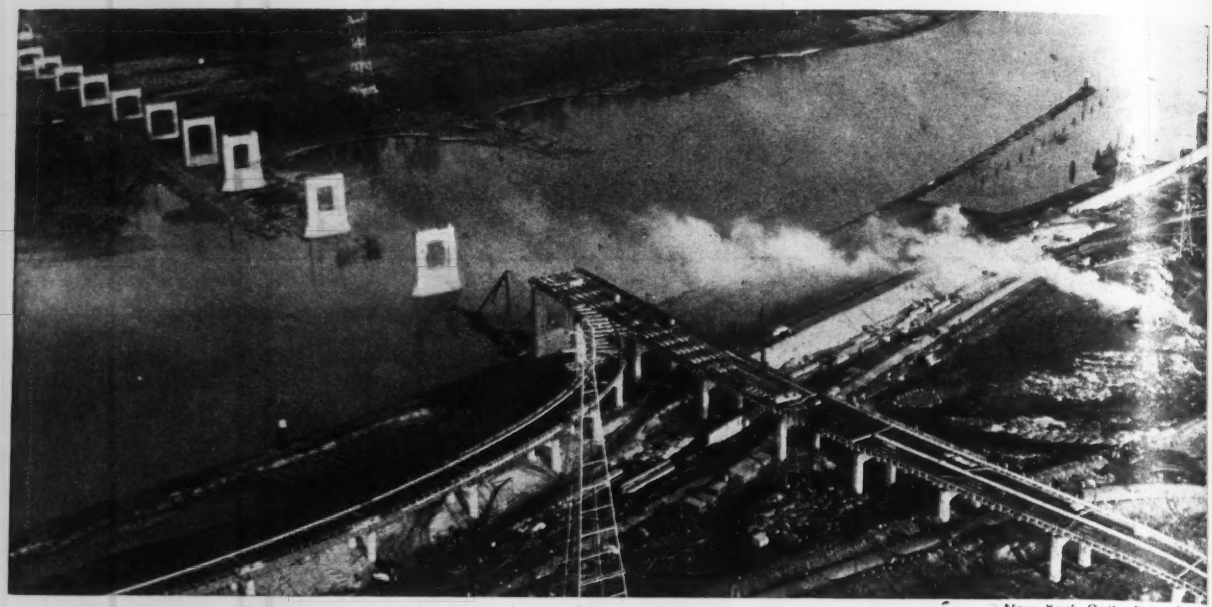
Falsework and erection details

What caused the movement of the bent to start, (if indeed there was movement) is not known. Water is about 15 ft. deep at the falsework bent location A layer of coarse sand covers a soft material, known



Arrow Commercial Photo

Less than a minute after this photo of the Hartford Bridge was taken the span crashed into the Connecticut River. Note apparently slack guy cable on near side of falsework.



New York Daily News Photo

After the accident on the Hartford Bridge. The fallen derrick and wrecked steelwork may be seen in the first river span. The center river span will be 300 ft. long and therefore the longest plate girder span in the United States.

geologically as varved clay. A more stable layer of clay underlies this, and rock is encountered at a depth of about 50 ft. below water. The falsework piling consisted of two groups of 28 timber piles each 65 ft. long and driven to refusal on rock. They extended about 14 ft. above mean low water and were timber capped and braced. Steel grillages over each group served as a base for a steel bent extending up about 65 ft. to the bottom flanges of the girders. The falsework was equipped with a jacking device to permit vertical adjustments, but during erection the jacks were not carrying any load.

During erection the uplift at the concrete pier was resisted by a 16-in. by ⅞-in. plate attached to the shoreward end of each of the two girders and extending about 17 ft. vertically down to a grillage anchorage in the concrete pier. This plate and anchorage were set while the piers were being built and were connected to the girder ends by twenty-two 1¼-in. turned bolts in reamed holes. The possible longitudinal movement of the bridge was resisted by short channel connections in which three 1-in. bolts were placed in double shear.

The turned bolts in the vertical hold-down member showed little sign of distress, but both plates were broken, apparently by a direct tension pull occurring when the outer end of the bridge started down and the bridge shoe served as a fulcrum while the long lever arm produced a tremendous lift. The bolts sheared in the member used to prevent longitudinal movement. Concrete in the pier was damaged very little, damage being limited to scarring which hardly exposed the reinforcing steel. Some of the granite facing near the base of the pier was broken by the falling steel work.

The steel of the entire 270-ft. span, except the one 96-ft. section not yet brought out on the bridge, lies in a twisted mass of wreckage in 10 to 15 ft. of water and is seen as a total loss.

Biggest derrick wrecked

This country's largest erection derrick, built new for this job, is also in the wreckage. It had a 55-ft. mast, 60-ft. lay legs, and was operating with a 100-ft. boom at the time of the crash. The outfit weighed 176 tons, was built of special steels, and was said to be capable of picking up the equivalent of its own weight. A crawler erection crane also fell with the bridge.

Erection was following the plan made up some months ago which provided for the single falsework bent at 120 ft. from the shore pier in the 270-ft. span. The second span, 300 ft. (world's longest) was to be cantilevered across the first river pier to another falsework bent 210 ft. beyond the pier. The final 270-ft. span of the 840-ft. continuous plate girder was to have been erected similarly to the first span with a falsework bent 120 ft. beyond the pier. Erection was planned to progress from the Hartford side, using the one traveler for erection, supplemented by the crawler to place auxiliary steel.

The builders have not decided whether or not erection can proceed without waiting for replacement of the fallen steel.

This bridge is part of the new Bypass Highway being built to alleviate traffic conditions in Hartford, and is part of the Wilbur Cross Parkway now under constructed across the state. It is being built by the Connecticut Highway Department at a total cost of $4,500,000. The substructure was built by the A. I. Savin Construction Co., Hartford under a $672,500 contract, but this work had been completed and the contractor had moved from the site. The superstructure is being fabricated and erected by the American Bridge Co. under a $1,236,967 contract from plans prepared by the Connecticut highway department, Robinson and Steinman being consultants.

Among those lost and dead

In addition to Superintendent Ward, a junior engineer, Francis Schaffel, was killed, and two engineers, J. Henry Leon and Joseph Walton, are among the critically injured. Mr. Ward had spent his entire bridge-building career with the company, his first structure having been the B&O bridge at Havre de Grace, Md., 35 years ago. He had been superintendent on the San Francisco-Oakland Bay Bridge, and since returning east had erected the Trylon and Perisphere at the New York Worlds Fair and the Housatonic River bridge on the Merritt Parkway in Connecticut. Mr. Schaffel, attached to the Pittsburgh erecting office, had been with the company three years.

Of the two injured engineers Mr. Walton, assistant engineer from the Pittsburgh erecting office, was in charge of work on the bridge. A graduate of Lehigh University, he had been with the company 18 years. Mr. Leon, assistant engineer in the New York erecting office, had worked on the design of the erection scheme and was merely visiting the job on the day of the accident. A graduate of Princeton and M.I.T. he started work with the company on the Kill van Kull bridge at New York in 1928.

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U. S. Treasury in dilemma on contractor taxation

The U. S. Treasury would like simply to wipe out the whole vexed question of state taxation of federal contractors. It is proposing informally that government business transactions, whether state or federal, be subjected to the same state and federal taxes as any other transactions. The recent Supreme Court decision holding that even cost-plus contractors are liable to state sales taxes has faced the treasury with a problem—shall it meekly pay the taxes, or shall all the purchase arrangements on government contracts be modified to make the government the purchaser of everything. The reciprocal arrangement, as a possible alternative, would save the red tape of continually distinguishing between taxable and non-taxable transactions.

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Canvas tent will house bridge deck paving job

Decision was reached last week to use a canvas cover to protect paving operations on the upper or highway deck of the Pit River Bridge on the Shasta project in California. The covering is to be some 300 ft. long and 50 ft. wide, supported on a rope-and-pipe framework designed to be moved ahead as the work progresses.

This expedient is to permit pouring the deck concrete continuously through the rainy months, thus making it possible to use the bridge at a considerably earlier date than the time for completion of the paving contract, which was set at May 28, 1942. The completion of the Pit River Bridge may be an important factor in finishing other parts of the project.

Contract for the bridge is held by the American Bridge Co.; concrete paving on the upper deck was sublet to the Crouse & Sanders Co., Detroit, Mich.

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Tulsa votes bond issue for sewage improvements

Citizens of Tulsa, Okla., on Dec. 2 voted approval of 11 major projects to be financed by a proposed $3,833,000 bond issue. Most of the work is necessary due to an increased population resulting from the $22,000,000 Douglas Aircraft Co. bomber assembly plant being rushed to completion at Tulsa.

Among the items approved are: a 15.5-mgd. sewage disposal plant; a $1,037,000 interceptor sewer main; 26 storm sewer projects estimated to cost $709,000; 7 sanitary sewer projects and repairs to existing system costing $264,000; and $916,000 of work on the water distribution system.

Fern Ridge Dam completed on Willamette River

Fern Ridge Dam has recently been completed, placing in service the initial unit of the $84,000,000 program of development in the Willamette River valley in Oregon by the U. S. Engineer Department, for water conservation, flood control, irrigation, power and reduction of stream pollution. The structure, located on the Long Tom River, about 12 miles from Eugene, Ore., is a rolled earthfill dam 44 ft. high, with a crest length of 6,400 ft. Storage of 100,000 acre ft. is provided by the main dam and two small dikes. Design includes relatively standard elements, including an impervious zone flanked by extensive zones of pervious material, and a layer of dumped riprap on the upstream face.

At the dedication celebration, Col. C. R. Moore, district engineer, Corps of Engineers, who has directed work on the Willamette River project, paid high tribute to and personally commended the engineering rank and file which had carried forward the design and supervised construction of the Fern Ridge job. B. E. Torpen is principal engineer, U.S.E.D., at the Portland district office. E. G. Herb was in charge of the Eugene office under which the dam was built.

Contract was executed by Morrison-Knudsen Co., Inc., of Boise, on a low bid of $723,500.

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Wilmington approves bond issues for municipal work

Bond issues for the construction of a new water system and the extension of sanitary and storm sewers were approved by the voters of Wilmington, N. C., Dec. 2. Totaling $635,000, the issues will be floated by the city to supplement $866,000 in federal funds. Work is scheduled to get under way within the next two months.

Circus moves to Alaska

The giant tent, used this spring to protect Mud Mountain Dam near Seattle while its earth core was being placed, has been adapted to service at Yakutat Bay, Alaska, protecting newly-laid concrete runways at an army base.

After concrete paving began last summer on the Yakutat job, rainfall was found to be so heavy at times that the fresh concrete surface was damaged before it could set. Drainage of the prepared subgrade also was a problem. Average annual rainfall at Yakutat Bay is about 120 in., and September, supposed to be the last month of the dry season, had a total of almost 30 in.

Accordingly, a framework fashioned from pipes was made for a tent, 30 ft. wide, in two sections each 300 ft. long, mounted on rubber-tired wheels manufactured for use on wheelbarrows. Canvas—64,288 sq. ft. of it, in 16 pieces—was obtained from the Mud Mountain Dam tent.

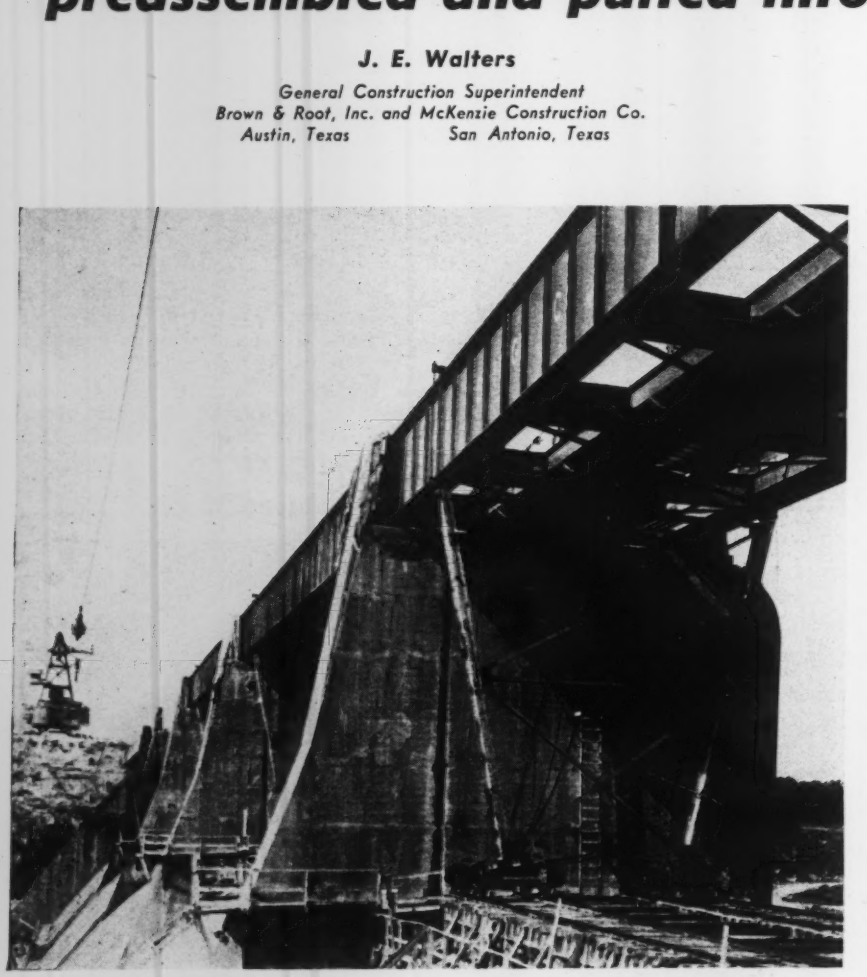
Under normal conditions, one section of the tent is ahead of the paver, protecting the subgrade prepared for concrete, while the other is behind, protecting the newly-laid concrete for about three hours. When the temperature drops below 40 deg. F. and the rain is heavy, both sections follow the paver, protecting the concrete for about 6 hr. The tent is pulled along by a tractor as the concrete is laid in 25-ft. strips at an average rate of 100 ft. per hour, 24 hr. a day. Crews consist of soldiers and hired workmen. Standard cement is used.

The project is under the supervision of the Seattle district office of the U. S. Engineers, Col. B. C. Dunn, district engineer and Col. Peter P. Goerz construction engineer. The tent is being used under direction of Capt. F. J. Loomis, resident engineer, 802nd engineers. It is scheduled to be moved to the army air base on Annette Island, Alaska, when concrete mixing begins there next spring.

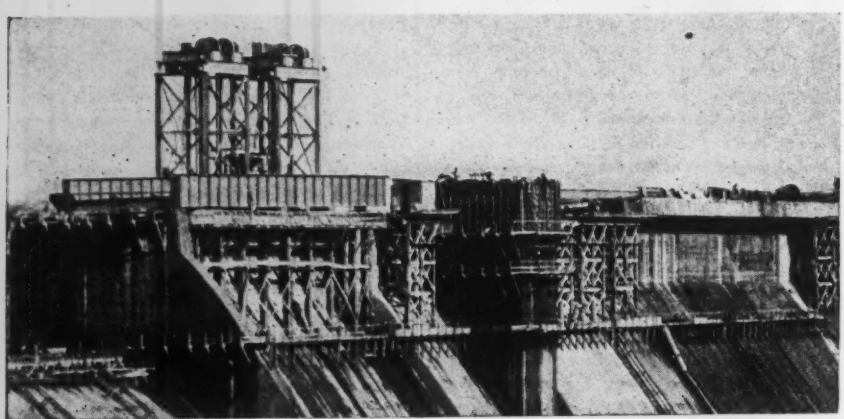
Marshall Ford spillway bridge preassembled and pulled into position

J. E. Walters

General Construction Superintendent
Brown & Root, Inc. and McKenzie Construction Co.
Austin, Texas San Antonio, Texas



The bents used for supporting the bridge during moving operations are mounted on railroad car trucks. The bents shuttle between the piers as each advance is made, being supported on the return trip by a beam across the top of the girders with a rod connection to the bent.



First section of the spillway bridge is assembled, partly on falsework, on the non-overflow section of the dam. Low trucks bring the girders from the abutment to this point.

DUE TO span length, assembly equipment available, weight of girders, and the desire to minimize the hazards to employees engaged in the assembly work, the highway bridge spanning the Marshall Ford Dam spillway was assembled and riveted on adjoining concrete blocks. The completed bridge was then moved across the spillway to its permanent position while supported by structural bents mounted on railroad trucks.

The bridge is of the continuous plate-girder type, 740 ft. long, 7½ ft. deep, and with a span of 147 ft. between supports. The main girders were shop riveted into 18 sections varying in length from 64 to 117 ft. and in weight from 18 to 33 tons. Total steel in the bridge is 600 tons, of which about 200 tons was required for floor beams and stringers.

The main girders were moved about half a mile from the railroad terminal to a transfer point at the top of the dam on heavy duty trailers with special bolsters. At this point they were loaded on special low trucks, running on a wide-gage railroad track, and moved out over the top of the dam to an assembly bay. This assembly point was at the outer end of the non-overflow section and was widened, by falsework carried down to the sloping face of the dam, to provide working area.

Complete assembly of the steel and all riveting was done at this point, and as each section was finished, the bridge was pulled forward across the spillway section of the dam. For this movement a steel frame bent supported the bridge between each set of piers. These bents rolled forward on railroad car trucks riding on standard-gage track laid on the spillway crest. Cables from the trucks to the next panel of the deck counteracted the end thrust and made it possible to use a single-leg bent. As the bridge moved forward additional sections were fabricated and the moving procedure repeated for each span.

All bridge sections were erected one inch above final grade and moved across the spillway at this elevation. When in position the bridge was lowered to the supporting castings by releasing the moving bents through the use of 50-ton jacks. Power for moving the bridge was obtained from a winch on a 5-ton truck, using a five-part line, which provided a slow steady speed.

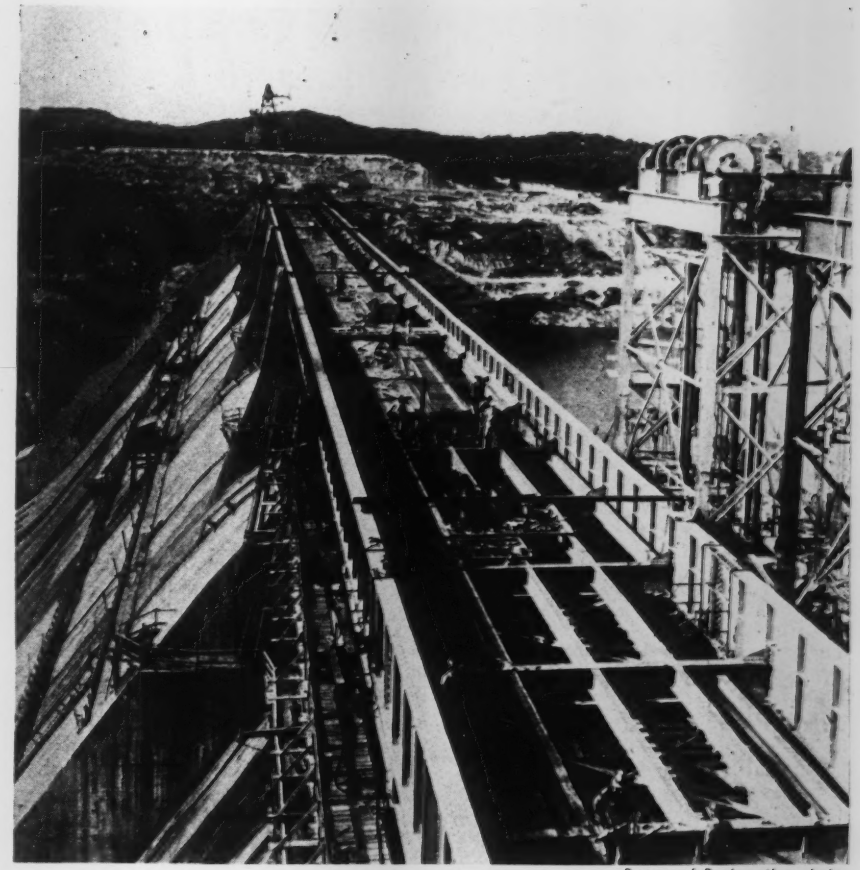
Marshall Ford Dam is the world's fifth largest masonry dam being exceeded in size only by Grand Coulee in Washington, Shasta in California, Boulder in Arizona-Nevada, and Friant in California, all of which have been completed or are under construction by the Bu-

reau of Reclamation. The main section of the dam is built of concrete, has an ogee spillway 730 ft. long and a total length of 2,423 ft. The dam rises 270 ft. above foundation bedrock, and contains 1,864,000 yd. of concrete. An earth- and rock-fill embankment section 105 ft. high and 560 ft. thick at the base extends a considerable distance from one end of the dam and contains 1,715,000 yd. of material.

The dam was started under a contract for a height of about 200 ft. with a design adaptable to the higher dam. Before construction of this was completed the same contractors were awarded the concrete work for the higher structure.

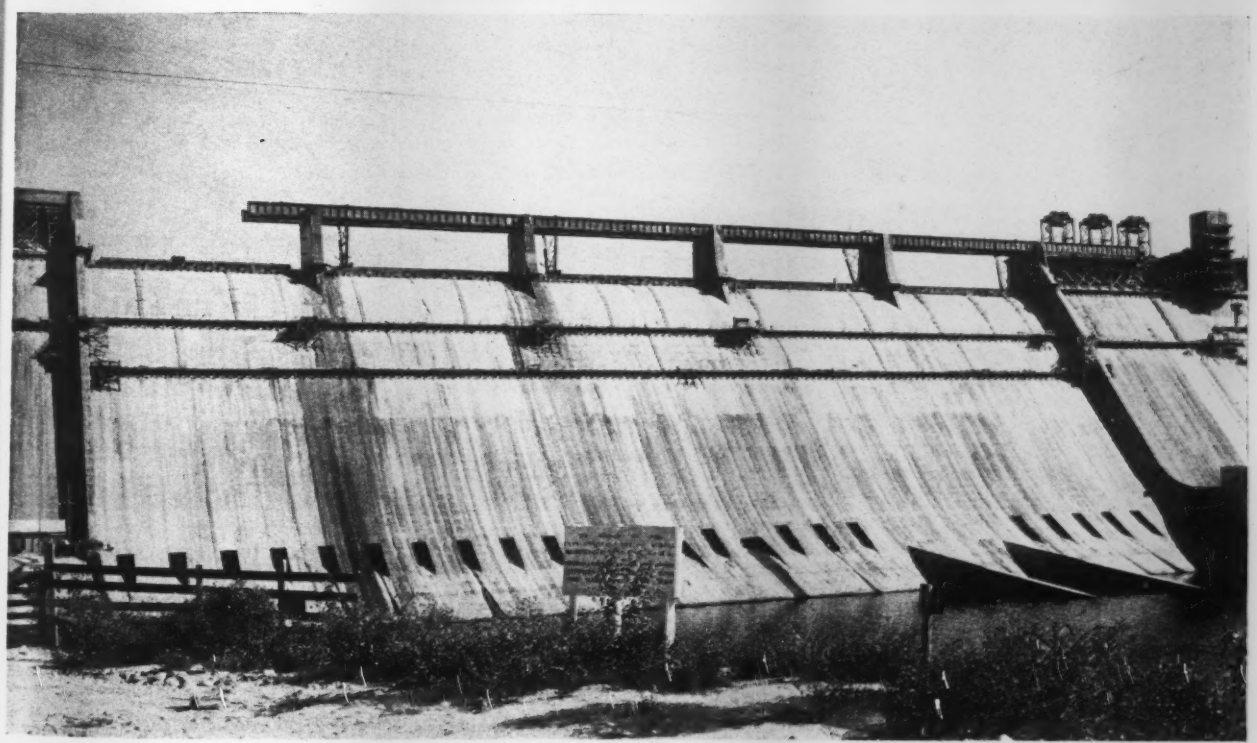
Marshall Ford is the fourth and largest dam of a series erected on the Colorado River of Texas to reduce its floods, provide water for irrigation and domestic and industrial needs, and generate hydroelectric power. The 75,000 kw. capacity electric plant has been in operation almost a year. Construction of the dam was begun in March 1937 and is now practically completed at a total cost of about $26,000,000. This amount includes reservoir costs for a storage of 3,120,000 acre-feet, which makes a lake approximately 69 miles long.

For the Bureau of Reclamation, Charles P. Seger is construction engineer and Murray J. Miller field engineer. For Brown & Root, Inc. and McKenzie Construction Co., contractors on the project, Ross White is general manager, M. P. Anderson chief engineer, and the writer general superintendent.



Bureau of Reclamation photo

Looking along the top of the dam with forms being placed for the concrete deck of bridge.



Downstream side of the spillway. When gap at left end is closed bridge will be in final position. One bent is used for each span, being moved to extreme right of span prior to each advance.

Urgency of the current road situation laid before Highway Research Board

Thomas H. MacDonald and Charles M. Upham discuss need for a broad grasp of highway problems growing out of the present emergency at annual meeting of the Highway Research Board in Baltimore.

Two aspects of the road problems growing out of the present emergency were presented to engineers assembled in Baltimore last week for the annual meeting of the Highway Research Board by Thomas H. MacDonald, chief, Public Roads Administration, and Charles M. Upham, engineer-director of the American Road Builders Association. Mr. MacDonald stressed the need for broad vision in laying plans for highway work in the post-war period and Mr. Upham took up financial questions urging state highway departments to be ready to inaugurate and prosecute a highway building program far in excess of anything heretofore contemplated as a means for taking up slack in employment as the defense effort falls off.

Departing from long-established custom, the Highway Research Board held its annual meeting in Baltimore, Dec. 2–5, to escape the congestion in Washington. Johns Hopkins University acted as host, turning over auditoriums in the engineering buildings to the board for its meetings. About 450 were in attendance.

Isaiah Bowman, president of the university, in welcoming the group, told of improvements made in highways in South America between the time of his first visit as a geographer 28 years ago and his visit last summer as a representative of the State Department.

The major part of the meeting was given over to reports of the several departments and committees of the board and to the presentation of papers on subjects being considered by the board committees. Summaries of these papers will be published in the Dec. 18 issue.

National highway plans

Thomas H. MacDonald, addressing the meeting in his capacity as head of the finance department of the board, said that in these times when little is known of what monetary values will be in the future it is important to deal in units of work such as man-hours rather than in dollars so that changes in monetary values will not distort the record.

Turning to what he characterized as the urgent matter of sound planning for highway transport in the post-war period, Mr. MacDonald said that tremendous changes in both road and air transport after the war are a certainty and that these changes must make a profound change in highway development. As an example he cited the vast expansion of the nation's capacity to build airplanes, an expansion that must result in much greater use of air transport for long-distance travel after the war. This, he said, lays new emphasis on highways as an agency for local rather than long-distance travel. Also pointing to the growing importance of local travel is the decentralization of industry, already far advanced by new defense industries whose plants will certainly be converted to civilian use after the war. Great housing developments outside congested urban areas to create employment in the post-war period may be still another factor. A long war, he said, may make transportation costs a major factor in family budgets, thus pointing to the need for more efficient transport and more efficient highways on which fuel consumption will not be increased by costly delays.

A single problem

A first essential to meeting future needs, Mr. MacDonald said, is for state legislatures to recognize that rural and urban highways are not separate problems but a single problem to be met by a unified plan that will provide funds for each element in proportion to its importance. Also needing elimination are the legal restrictions on land purchase and use that hamper acquisition of rights-of-way for trunk highways through urban areas. Much better provision must be

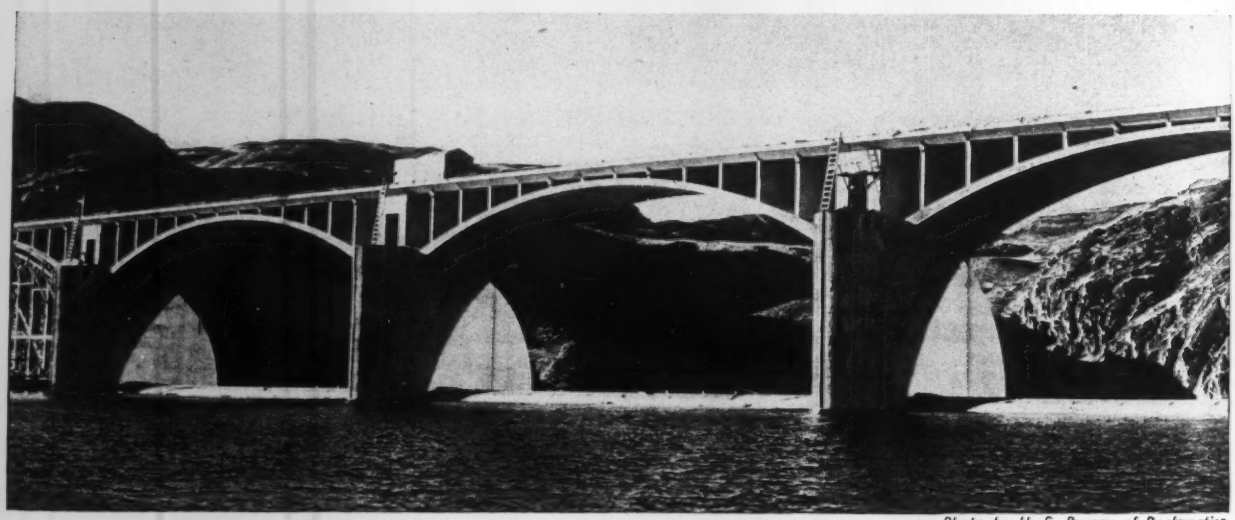


Photo by U. S. Bureau of Reclamation

Highway bridge now spans Grand Coulee Dam spillway

Falsework has just been removed and work is progressing rapidly on final construction stages of the highway bridge across Grand Coulee Dam spillway. There are eleven 135-ft. arches spanning the 1,650-ft. spillway section.

Drum gates, now concealed in concrete chambers directly below each section, can be raised to the apex of the triangular shaped metal plates on the piers to provide 28 ft. of additional storage in the reservoir. The surface of the 136-mile length of lake was only a few feet below the crest of the concrete spillway, and 315 ft. above the river below, when this photograph was made.

Grand Coulee Dam, the major project on the Columbia River, which is being built by the U. S. Bureau of Reclamation, is scheduled for completion early in 1942.

made for the motor vehicle when not in motion, Mr. MacDonald said, which means parking areas off the streets and highways, space that should be used by moving vehicles.

On a national scale, Mr. MacDonald expressed the opinion that transportation needs to be viewed as a unit including automobiles and trucks, mass transportation facilities within cities, rail transportation and air transport. To compete with air transport, railroads must do much more in the way of increasing speed by providing better alignment and grades for their trains and this work, if integrated with new highway requirements, may produce major economies on such things as major river crossings and rights-of-way acquisition.

A vast highway program

A vast highway program in the post-war period was visualized by Charles M. Upham, engineer-director, American Road Builders Association, if highways are to do their part in keeping the national income at levels necessary to prevent a deep business depression. Estimates of employment indicate that if the present war lasts until 1944, nearly one half the nation's total labor force will be in defense work or in military service. By that time national income may reach 100 billion dollars and the tax receipts of the government will have risen to a point where a public works program much greater than any ever before undertaken could be financed without further increase in the public debt. Such a program, to provide employment on useful public works for men released by defense industries during the period in which private industry is readjusting itself, is estimated by Mr. Upham at around twelve and one half billion dollars, made up of highways, five billion, housing four billion, and miscellaneous public work three and one half billion. The highway work, Mr. Upham breaks down into two billion for needed modernization of existing roads, and three billion for city access and city bypass roads and for needed superhighways between cities.

Of all public work, Mr. Upham stated that highway best fill the requirements set up by the National Resources Planning Board for useful employment creating projects. Slightly less than half the employment created by highway work is at the site, the remainder being in production of raw and finished products and in transportation of those products to the site. Average highway expenditures from 1926 to 1933 were about $1,375,000,000 and created employment for a total of 5,000,000 people. On this basis, the larger program would produce employment for about 18,000,000 people.

Mr. Upham urged the highway authorities to push their planning so that they will be ready to make such an expansion of highway construction operations possible when needed.

Commenting on Mr. Upham's remarks, T. R. Agg, dean of engineering, Iowa State College, observed that highways built according to the sound economic principles laid down by the economics department of the Highway Research Board would not only provide two dollars of off-site work for each dollar spent but also would provide sufficient savings to the users of the highway to justify the expenditures, thus making such highways truly self-liquidating, even though the roads brought no direct cash return. This point, he said, needs to be emphasized in laying road plans before legislative bodies.

Two awards made

The George S. Bartlett Award for distinguished contributions to highway development, a bronze plaque sponsored jointly by the Highway Research Board, the American Association of State Highway Officials and the American Road Builders Association, was awarded to Frank T. Sheets, president of the Portland Cement Co. and former state highway engineer of Illinois, at the annual dinner of the Highway Research Board by Warren W. Mack, chairman of the board. The board's own award for the outstanding contribution to its papers during the preceding year was made to F. V. Reagel, materials engineer of the Missouri State Highway Department.

The speaker at the annual dinner was Abel Wolman, professor of sanitary engineering at Johns Hopkins University, who took as his subject the contributions of sanitary engineering to human progress.

New York dedicates first defense housing project

New York City's first defense housing project, Wallabout Houses, near the Brooklyn Navy Yard, was officially dedicated Dec. 3. The project was built by the New York City Housing Authority, acting as agent for the Federal Works Agency.

The 13-story structure of reinforced concrete construction with brick facing, contains 764 rooms to house 207 families of enlisted Navy personnel. Rushed to completion in a little more than five months, the project cost about $881,469. The building occupies 25 percent of a one-acre site.

General contractor for foundations and superstructure was Corbetta Construction Co., New York, N. Y., and William I. Hohauser, Carl A. Vollmer and Walter W. Wefferling were architects.

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Philadelphia sewer program stymied

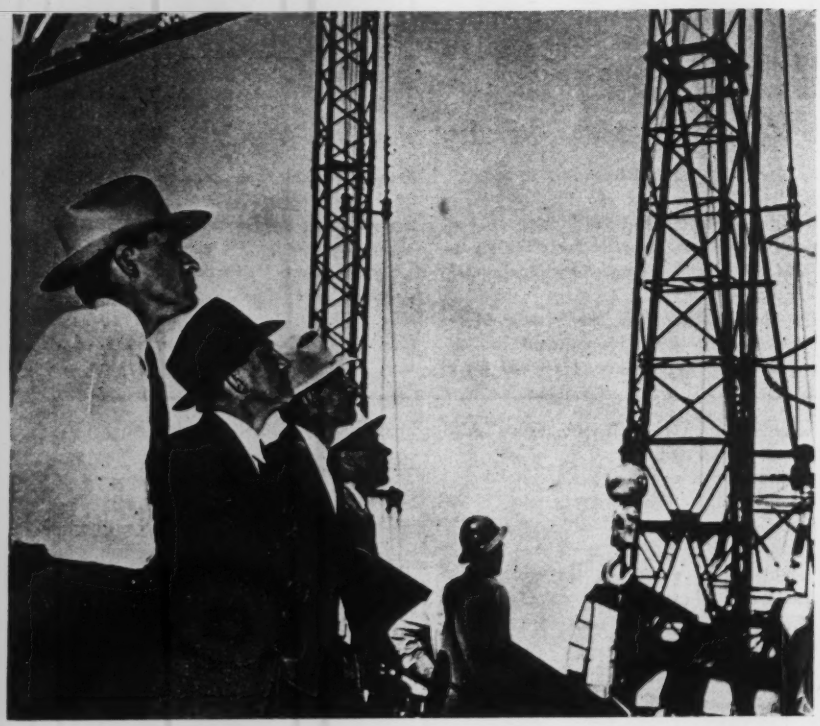
Philadelphia's sewer program calling for an expenditure of $2,676,148 of federal funds to complete the city's sewage disposal system has been stymied by announcement of FWA that a new congressional appropriation will be necessary before funds can be granted.

Despite President Roosevelt's order of Oct. 17 for an investigation of the pollution situation in the Schuylkill River at Philadelphia (*ENR*, Oct. 30, Vol. p. 626), it is not likely that any funds will be forthcoming in the near future due to the fact that this session of Congress will hardly appropriate additional funds for municipal works.

MEN AT WORK

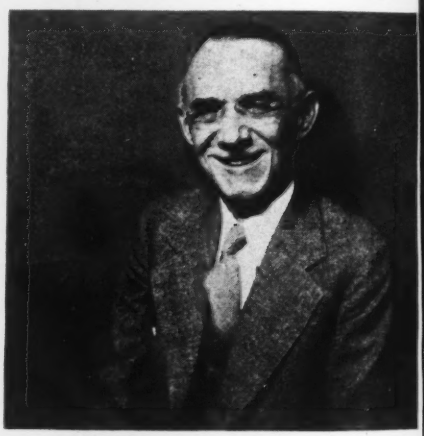
Defense construction sites are familiar ground to CAPT. CHARLES S. ALLEN, engineer officer at the Twin Cities ordnance plant. He has just been assigned duty there after service in the Zone VII headquarters, Kansas City.

EDWARD S. RANKIN (left above), secretary, and EDWARD T. DECHER, assistant secretary and purchasing agent of the Essex and Union County Joint Meeting sewerage system in New Jersey. Mr. Rankin is also engineer for the city of Newark in the division of sewers.



Army engineers (left) responsible for supervising construction of the $25,000,000 Fort Worth, Texas, aircraft assembly plant looked on with satisfaction Nov. 15 as The Austin Company raised the last truss for the main assembly building's 22,000-ton framework, which was erected in 80 working days. They are, left to right: CAPT. J. H. ANDERSON, resident engineer at Ft. Worth; COL. STANLEY L. SCOTT, division engineer at Dallas; LT. COL. W. W. WANNAMAKER, Denison, Texas; and CHARLES O. QUADE, assistant resident engineer at Ft. Worth.

As resident engineer for the Tennessee highway department on a new divided four-lane highway southwest from Nashville to the Vultee Aircraft plant and the municipal airport B. E. CRANCH (extreme left) is plenty busy these days. At his right is E. L. FARRELL, also of the highway department and a visiting resident engineer.



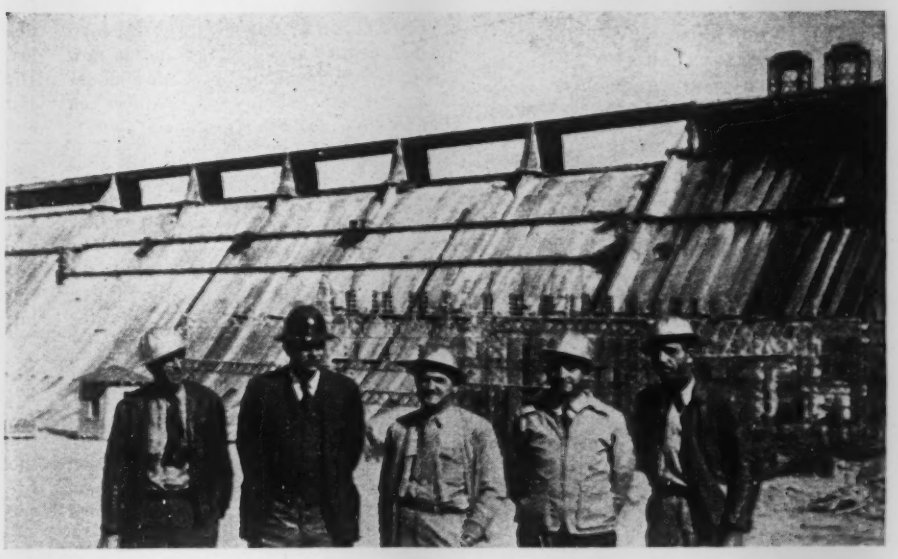
As resident engineer for the Atlas Powder Co., I. K. O'BRIEN (above) played an important part on construction of the Ravenna, Ohio, ordnance plant. Consultation with the architect-engineers as to layout and design of railroads, roads, buildings and utilities constituted a large part of his work. From 1931 to 1935 Mr. O'Brien was chief engineer for Atlas and in 1936 was made development engineer

DAVE STORRER (far left), city engineer of Dearborn, Mich., takes a quizzical view of things explained by DAVE GODAT, consulting engineer of New Orleans.

Engineers in charge at the Twin Cities ordnance plant include those at right below. Project Manager EARLE NEVILLE (with phone) heads the field force of Foley Bros., and Walbridge, Aldinger Co., contractors. Seated at left is TED AMES, general superintendent, and standing, left to right, are: E. J. PALO, equipment supt.; A. H. ALDINGER, chief engineer; B. E. BARNHILL, assistant project manager; and TED ANDERSON, purchasing agent.

A two-way radio set, with which he is able to contact the key personnel employed on the construction project, aids greatly CAPT. FRANK A. RAY, constructing quartermaster at the Plum Brook ordnance works, Sandusky, Ohio.

engineers who designed and built the ow Bridge at Niagara Falls are shown . At the left is E. L. DURKEE, resident eer on the job for Bethlehem Steel, and e right SHORTRIDGE HARDESTY of dell & Hardesty, who designed the struc- They are shaking hands with A. L. Mc- L, who presided at a recent meeting of Niagara Peninsula Branch, Canadian In- of Engineers, at which Mr. Durkee and Hardesty were speakers.



st a background of the Marshall Ford in Texas are, left to right: MURRAY J. ER, ROSS WHITE, CHAS. P. SEGER, M. P. ERSON, and J. E. WALTERS. Mr. Seger is uction engineer and Mr. Miller, field engi- for the Bureau of Reclamation. Mr. White neral manager, Mr. Anderson chief engineer, Mr. Walters general construction superin- nt for the contractors, Brown & Root, Inc., McKenzie Construction Co.

MEN AND JOBS

J. W. Hamilton, of Olympia, Wash., an official in the Washington state highway department since 1917, has resigned. Mr. Hamilton was state maintenance engineer for several years, and district highway engineer at Olympia from 1935 to date. He is succeeded by **George A. Mason,** assistant district engineer since 1929, who has been with the department in various capacities since 1920.

Glenn L. Enke, bridge designer, has resigned after ten years with the California division of highways to join the staff of Donald R. Warren, consulting structural and civil engineer of Los Angeles. Mr. Enke recently prepared plans for the vertical-lift bridge across the Cerritos Channel from Long Beach to Terminal Island. Prior to his experience with the state bridge department, he was with the American Bridge Co. of Gary, Ind., and Giffels & Vallet of Detroit, Mich.

Tobias Hochlerner, deputy chief engineer of the department of water supply, gas and electricity, Board of Water Supply of the City of New York, has been appointed acting chief engineer of the department's Bureau of Water Supply to replace chief engineer William Flannery, who died recently. **Edward Nuebling,** former division engineer, has been designated acting deputy chief engineer to succeed Mr. Hochlerner, and **Charles D. Livant,** his former assistant replaces Mr. Nuebling.

Fred J. Biele, former assistant engineer-designer with the Board of Water Supply, of New York, has accepted a government defense job with Caribbean Architect-Engineer, New York City.

T. A. Grissom, former city engineer for Mt. Pleasant, Tex., has received an appointment as associate engineer, U. S. Engineer Department, to be located at Honolulu, T. H.

Frank Campbell has been appointed maintenance superintendent of the Asheville, N. C. water department, and **Thad Burnett** appointed superintendent of the watershed for Asheville. Under a reorganization program, Mr. Campbell and Mr. Burnett will take over part of the duties handled by **Robert L. Maynard,** formerly general superintendent of the Asheville water department, who resigned effective Dec. 1 to become office engineer at Atlanta, Ga., for the Portland Cement Association.

Major W. O. Hauck, chief engineer and assistant constructing quartermaster of the Hoosier Ordnance Works, left there late in November to take charge of the Wabash Ordnance Works at Clinton, Ind.

David C. Warner, who has been doing volunteer statistical work on Ohio's water supply situation for the past five years, now has a job as the only licensed water conservation engineer in the state. He was appointed state water consultant by **Frank L. Raschig,** state director of public works. Mr. Warner was appointed to the water conservation board in 1931, but the appropriation for the work was eliminated in 1936. Since then he has been working in a "borrowed" room in the supreme court building, compiling information on the state's diminishing water supply with suggestions for improving conservation. The present appointment is made under a statute enacted in 1919, empowering the director to employ a water consultant.

Maj. A. G. Viney, Corps of Engineers, has been appointed district army engineer at Jacksonville, Fla., by special order of the Chief of Engineers, U. S. Army. Maj. Viney had been serving as acting district engineer since the retirement of **Col. W. C. Weeks** on Oct. 27. He came to Jacksonville from the Providence, R. I. district several months ago as executive assistant to Col. Weeks, holding the rank of captain. His promotion to the rank of major came while he was serving as acting head of the district. Assisting Maj. Viney are **Capt. Herbert C. Gee** and **Capt. H. J. Skidmore.**

Charles R. Goddard has resigned his position with Riggs Distler & Co., Inc., as field superintendent in charge of equipment installation on the Edgewood arsenal project in Maryland and is now associated with Bechtel-McCone-Parsons Corp. as assistant project engineer on their Louisiana, Mo., Ordnance Works project.

Harry M. Dodd has been appointed project engineer, Federal Works Agency Defense Housing, South Bend, Ind. Mr. Dodd came to South Bend from the Kingsbury Ordnance Plant, La Porte, Ind., where he was associated with the Bates & Rogers Construction Corp. Prior to this position he was with PWA as resident engineer-inspector in the states of Kentucky and Georgia.

Maxwell Halsey has accepted a position as executive secretary to the Michigan State Safety Commission and assumed his duties in Lansing, about Dec. 1. A graduate of the University of California, Mr. Halsey spent three years in graduate study at the Harvard Bureau for Street Traffic Research. Over the past 15 years he has served as instructor, lecturer, and research surveyor of traffic problems. His most recent position was as associate director with the Bureau for Street Traffic Research, Yale University.

Maj. Homer W. Gray is now serving as executive officer of the quartermaster section of the Special Staff, Headquarters 4th Air Force at Riverside, Calif. Maj. Gray was formerly a resident engineer with the Colorado State Highway Department, 1927-1941.

Robert H. Knabe, draftsman with the Indiana Harbor Belt R.R., is now junior engineer in the special engineering division of the U. S. Panama Canal Service.

J. R. Streeter, former county engineer at Stanton County, Kan., is now engineer with the Comanche County highway department at Coldwater, Kan.

Lt. Comdr. Richard De Charms, Jr., U. S. Naval Reserve, of Philadelphia, has been assigned by the Navy Department to succeed the late Lt. Comdr. E. W. C. Nice, who died in November, as resident naval officer in charge of construction at Cunningham Field, marine airbase now under construction on the Neuse River at New Bern, N. C.

C. Milo Thelin, designing engineer for the city of Fort Worth, Tex., since 1928, was recently appointed assistant city engineer. Before coming to Fort Worth, Mr. Thelin was with the bridge department of the Indiana state highway commission for a period of three years.

J. P. Laws has been made assistant construction engineer at Watts Bar Dam under construction by the Tennessee Valley Authority. Mr. Laws, formerly with United Engineers and Constructors, joined TVA in 1934. He has been office engineer successively at Wheeler, Pickwick and Chickamauga dams while with the Authority.

C. J. Code, assistant to chief engineer-maintenance-of-way, Pennsylvania, R.R. at Pittsburgh, has been promoted to engineer of tests-maintenance-of-way with headquarters at Altoona.

G. C. Ahrens has recently accepted a position as superintendent of the Omaha (Neb.) sewage treatment plant. Mr. Ahrens was previously associated with the Iowa state health department for five years, and before coming to Omaha was superintendent of the sewage treatment plant at Marshalltown, Iowa.

Left: Overpass permits troops and ordnance at Fort Lewis to cross Route 99 without interrupting traffic on a highway carrying 1,900 vehicles per hour.

Center: Central span, which makes use of timber trusses to provide clear span over Route 99, was built parallel to highway and then swung into place.

Bottom: Flooring is 3x4-in. planks, floor beams 12x26-in. timbers, and top and bottom chords of the truss made up of three 6x18-in. members assembled with ring connectors.

Federal Works Agency photos

Timber trusses used for Washington overpass

Recent completion of a timber-truss overpass across U. S. Highway 99, near Fort Lewis, Wash., to carry troops and ordnance over a heavily traveled road, has eliminated one of the worst traffic bottlenecks in that state. The crossing, which includes a timber truss span over the highway proper, is located one mile northeast of the main entrance to Fort Lewis and at the main entrance to the new 41st Division cantonment. The structure's overall length is 801 ft. and a 23¾-ft. wide deck is available.

Due to the heavy traffic on Route 99, the center span was erected parallel to the highway and then swung into position. This was accomplished by placing a pivot point at one corner of the structure and then swinging the span into place with a tractor equipped with a drum hoist. This operation began at 8 a.m. and was completed at 4 p.m. the same day. The temporary falsework required moved over round oak rollers resting on a track constructed in sections over the highway pavement.

To handle traffic during the moving of the span, it was necessary to construct two detours, which were routed through openings left in the pile approaches of the overpass. A traffic count taken during the time the span was being turned disclosed an hourly traffic of 1,900 vehicles on Route 99.

Costing $37,550, the project was carried out by the Work Projects Administration.

QMC construction is absorbed by U. S. E. D.

Agencies will continue to function independently for a short time, then Washington staffs will merge

Absorption of the construction division of the Quartermaster Corps, U. S. Army, by the Corps of Engineers, which became effective last week, will have no immediate effect on projects now under way. For a few weeks at least the two agencies will function as before except that Gen. T. M. Robins, chief of the construction section, Corps of Engineers, will also head the former Quartermaster division.

During this period a few new projects under existing programs may even be assigned to the quartermaster group, but this organization will not undertake any new programs such as the pending cantonment work or new groups of munitions plants. As previously pointed out, the engineers and contractors who want defense construction jobs should keep in touch with the district and division engineers of the U.S.E.D. having jurisdiction.

First move toward actual consolidation will involve the Washington headquarters staffs, with the two sets of field organizations maintained intact. The new Washington setup of the combined organization will provide four main "divisions" and two "sections" under the Chief of Engineers.

The military phase of the Engineers will be concentrated in a troops division, comprising operations and training, military railway, and intelligence branches. The construction division will have five main branches: engineering, operations, real estate, repairs and utilities, and labor relations. There will also be a supply division, comprising procurement, storage and issue, and development branches, and an administrative division consisting of personnel, fiscal, contract and claims, legal, and office service branches. A control section and a public relations section complete the organizational framework.

Subsequently all of the Washington staff of the quartermaster division will be temporarily absorbed into these divisions and sections. Thereafter there will be an extensive shaking-down process, which, however, will necessarily leave a major part of QMC personnel with the engineers.

Field offices

Consolidation of the two sets of field offices is still months away—far enough so that most projects now underway will be finished before they are shifted to new hands. Full procedure for consolidation has not yet been formulated, and most of the details will have to be settled directly between the division engineers and quartermaster zone officers themselves.

It is already decided, however, that the future field organization will be built around the existing Corps of Engineers setup of divisions and districts. A good many new districts will be created, but it is not intended to move any present district or division offices.

Initial unit of express highway opened at Cleveland

Bulkley Boulevard, first unit in a $45,000,000 highway improvement program of the Ohio Department of Highways, to provide the Cleveland metropolitan area with a modern transportation system, was opened to traffic late last month.

This express boulevard is the first large project to be undertaken by the department of highways within the Cleveland city limits. The project is 2.51 miles in length, consisting of two 36-ft. roads, each having three lanes 12-ft. in width, and the two roads are divided by a 13-ft. median strip. Two bridges, one a pedestrian underpass, were included.

The project was started in August 1940 with Lombardo Bros. Construction Co., Cleveland, as general contractors. Hal G. Sours is director of the Ohio Department of Highways.

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Highway priority aid limited to access work

The Public Roads Administration, as predicted last week, has stopped clearing requests for priority assistance on any highway projects except access roads. It is now felt that such help in getting materials should be limited to jobs which can be individually justified as furthering the war effort. The priority scheme for highways put into effect some months ago provided ratings for all highway projects on which federal money was being spent.

All access road projects, under new PRA regulations, are to be initiated by the Army or Navy rather than by local interests. Road jobs suggested by the services will be referred to the PRA district engineers, who will prepare general descriptions of the work to be done. Upon approval by the local military or naval officials, the projects will be formerly certified as access roads. State highway departments will then be asked to prepare detailed plans and specifications and to advertise for bids. In a few cases this engineering work may be done by PRA itself.

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Price actions taken on construction materials

Manufacturers of asphalt have been asked by the Office of Price Administration to hold their contract and open market prices for 1942 to the levels prevailing in contract sales on Jan. 1, 1941. Asphalt prices on the open market have increased substantially during the past year, one major grade rising in the East from $13 a ton to $15.

Imposition of ceiling prices on western pine lumber is being discussed by OPA at meetings this week with representatives of the industry.

A formal price ceiling was imposed last week on second-hand rail of re-laying quality. Basic price for rail originating from Class I lines was fixed at $28 per ton f.o.b. at any station on the sellers line. Dealers are allowed to re-sell at $30. For rail originating elsewhere, a basing point system is established by which shipping point prices will range from $30 to $22. A separate schedule for rail sold by reconditioning warehouses sets prices ranging from $2.25 to $1.60 per hundredweight.

Federal agencies act to prevent sabotage

Army Engineers, Bureau of Reclamation, and Public Roads Administration act to safeguard dams and highways.

Within a few hours after Japanese bombs began falling on Pearl Harbor, public works and construction agencies took first steps to avert the possibility of sabotage of military construction projects, dams, highway structures, municipal utilities, and other public works.

The Chief of Engineers Sunday night wired to Army construction projects, all of which are now under his jurisdiction, to be on the alert. Protection of projects is the responsibility of the commanding officer on the job—the air corps, ordnance, infantry, or engineer officer who has charge of the military aspects of the work. First step at most projects was to increase the regular civilian guards. Arrangements will probably be made within a few days to assign troops to projects which seem attractive to the saboteur.

At the same time the Bureau of Reclamation completely closed Boulder Dam to the public. The gates blocking the highway across the dam were closed for the first time; cars are now being permitted to cross only in guarded convoys. A battalion of military police was assigned to the protection of the structure.

The Bureau has installed guards on all its projects; previously only Boulder and in recent months Parker dams were thus protected. Guards were first placed at Parker when a warehouse burned under suspicious circumstances. Reclamation has for some weeks had men in training under the Federal Bureau of Investigation for guard duty. All visitors are barred at power projects. Meanwhile design studies of methods for protecting the exposed penstocks at Shasta Dam were expedited. These are the only exposed penstocks on Bureau projects. Methods being considered for protecting the penstocks from air attack, based on Spanish and British experience, are confidential.

On Monday, the Public Roads Administration wired state highway departments urging them to speed studies of methods for protecting critical points on the highway system against sabotage. At the request of the Office of Civilian Defense, PRA several weeks ago asked the state highway departments to make such a study and report back. It was suggested that they determine what bridges and tunnels carry vital traffic for which no alternative route is readily available.

PRA has no facilities for protecting such structures and the Army takes no responsibility. The states are being advised to assign guards to them and to make such structural changes as putting bars on drainage openings and the like.

AFL outlaws strikes

President John Coyne of the Building Trades Department of the AFL announced this week that the department would sanction no strikes by its component unions for the duration of the war. His announcement followed by a few hours a no-strike statement by President Green of the AFL. Green said the federation would make every effort to prevent strikes by its component locals and internationals.

There were practically no strikes of significance in progress when war broke out. Strikers at the Ravenna powder plant went back to work immediately upon the Japanese declaration of war. As we go to press status of the strike of independent welders is still uncertain. Last week the newly-organized United Brotherhood of Welders called a nationwide strike for Tuesday of this week in protest against alleged discrimination against their membership by the AFL unions. When war broke out the strike was called off. Monday, however, a new strike call was issued.

WASHINGTON HIGHLIGHTS

ADMINISTRATION and defense officials are trying this week to induce the Senate to restore to the pending defficiency appropriation bill funds for TVA's Douglas Dam on the French Broad River. The project was stricken from the bill in the House as a result of action by Tennessee congressmen who objected to the fact it will flood out farmland serving important canning industries in the state. They argued that alternative sources could be found for the 100,000 kw. which Douglas would provide. Urging approval of the project, OPM Materials Director W. L. Batt said that failure to do so would result in a serious power shortage in the area in 1943.

SPAB will help get materials to finish all power projects, public and private, now underway, it announced last week. All new projects must be submitted to OPM for approval even though the utility or public agency has inventories of material on hand to carry out the work. Issue arose as a result of efforts to the REA to obtain copper for its lines.

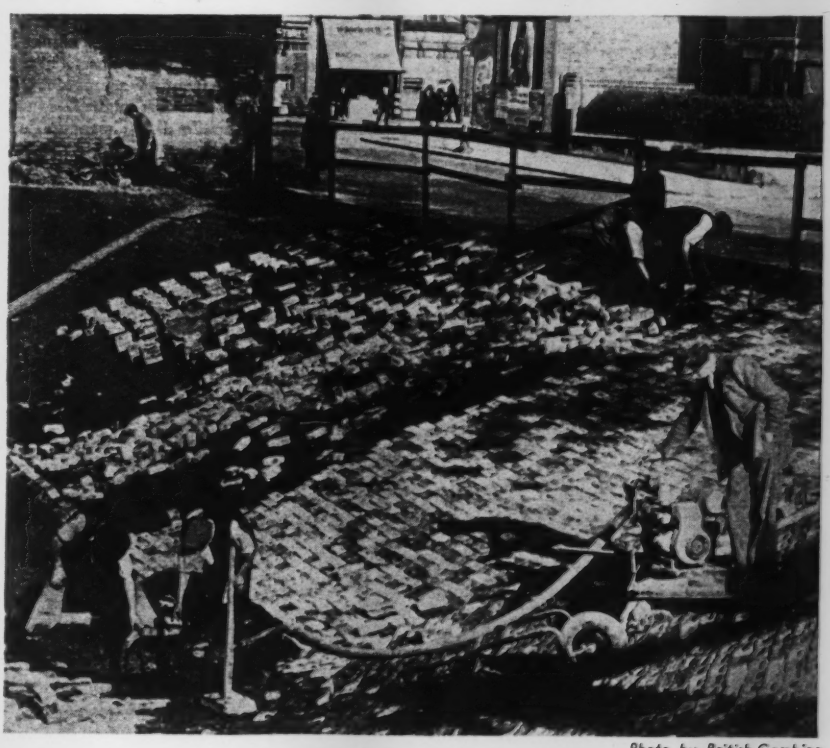
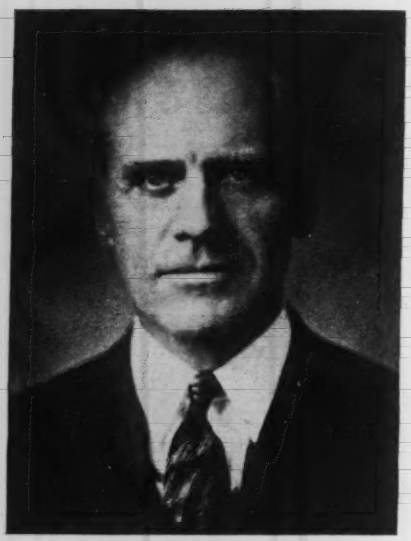


Photo by British-Combine

Reservoirs from rubble for London water supply

From bombed buildings in London vast quantities of brick and stone rubble have been salvaged and are being used effectively for building water reservoirs throughout the city to implement the emergency water supply.

Such conservation of basic building materials from devastated areas is being practiced to advantage in reconstruction work.



Keeling new chief engineer of Kansas highways

Ross C. Keeling has been promoted to chief engineer of the Kansas State Highway Comsion to succeed the late R. B. Wills.

Mr. Keeling has been associated with the highway commission since March, 1929. For eighteen months he was division construction engineer at Norton, and from 1930 to 1936 was division engineer. In 1936 was promoted to the position of engineer of construction for the commission at the headquarters office at Topeka, a position he held until his appointment to the post of chief highway engineer on Dec. 1.

Vehicle weight limit changed in 19 states

Substantial progress toward uniformity of motor vehicle size and weight limits in harmony with recommendations of organized highway officials was made during the 1941 legislative year, when 19 of 43 states having regular sessions changed their laws.

Texas abolished its former 7,000-lb. load limit for motor vehicles in favor of scientific weight distribution with a maximum gross regulation of 38,000 lb. The Tennessee gross weight limit for motor vehicles was raised from 24,000 to 30,000 pounds.

Statutes providing new weight limits also were adopted in California, Florida, Georgia, Indiana, Iowa, Maryland, New Hampshire, North Dakota, Ohio, Oregon, Vermont and Washington. Laws in these states generally require a maximum gross axle weight of 18,000 pounds as a standard. The American Association of State Highway Officials' bridge formula is utilized in new statutes in California, Georgia, Indiana, Maryland and Washington. Vermont substituted 600 lb. per inch of tire width for a 16,000-lb. axle limit on motor vehicles.

JOBS OF THE WEEK

APARTMENT, Los Angeles, Calif.
Farrar & Dunbaugh, Los Angeles, Calif., will build 800 dwelling units as part of a development on Sepulveda Blvd., and Imperial and Manchester Sts. The work, which will be done by the firm's own forces, is expected to cost $3,800,000.

APARTMENT, Los Angeles, Calif.
Nowell Building Co., Los Angeles, Calif., will construct 500 dwellings with its own forces. Cost of the work is estimated as $2,400,000 to $3,000,000.

WATER FILTRATION PLANT, Chicago, Ill.
Paschen Brothers Construction Co., Chicago, Ill., was low bidder for constructing the superstructure of the 79th St. water filtration plant when the Department of Public Works, Chicago, opened bids Nov. 14. The firm's bid was $2,091,763. O. E. Hewitt is commissioner of public works at Chicago.

CANTONMENT TYPE BUILDINGS, Greenville, Miss.
The War Department awarded a $2,181,225 contract for construction of 62 new cantonment-type buildings, grading the runways and the airfield area, drainage of the airfield, and paving the runways, taxiways, and parking areas to M. T. Reed Construction Co., Belzoni. The work is at the Southeast Air Corps Training Center.

NAVY YARD FACILITIES, Brooklyn, N. Y.
White Engineering Corp., New York, N. Y., has been awarded a $2,950,000 supplemental agreement by the Bureau of Yards & Docks, U. S. Navy Department, Washington, D. C., for additional facilities at the New York Navy Yard.

RESIDENCES, Elwood Park, Ill.
Fort Dearborn Mortgage Co., Chicago, Ill., will construct by separate contracts 200 residences, which are estimated to cost $1,000,000. Glenn Johnson, Elmwood Park, is architect for the project.

PLANT, Shawinigan Falls, Que.
Fraser-Brace Engineering Co., Ltd., Montreal, Que., will construct a $1,500,000 plant for the Canadian Department of Munitions and Supply and the Shawinigan Chemicals, Ltd., Shawinigan Falls.

GRAVING DOCK, South Boston, Mass.
United Construction Co., Winona, Minn., was low bidder with a bid of $2,924,664 for constructing the concrete graving dock when the Bureau of Yards & Docks, Navy Department, Washington, D. C., opened bids. Frederic R. Harris, Inc.; Moran, Proctor, Freeman & Mueser; Parsons, Klapp, Brinkerhoff & Douglas; and Fay, Spafford & Thorndike, operating under the title of Drydock Engineers, are engineers for the project.

FLOOD GATES, Freeport, Tex.
Tellepsen Construction Co., Houston, Tex., will construct the flood gates and buildings as part of the Intercoastal Waterway and Brazos River work 4 miles southwest of Freeport. The U. S. Engineers, Galveston, took bids and a $1,303,886 bid was low.

GENERATING PLANT, Dixon, Ill.
Illinois Northern Utilities Co., of Dixon, Ill., will construct by separate contracts a generating plant to house 50,000-kw. turbo generator. Estimated cost is $6,000,000. Sargent & Lundy, Chicago, Ill. are engineers.

PENSTOCK COASTER GATES, Odair, Wash.
American Bridge Co., of Pittsburgh, Pa., was lowest bidder for furnishing three 15x29.65 ft. penstock coaster gates for installation at Grand Coulee Dam at $732,082 when bids were opened by U. S. Bureau of Reclamation.

HOUSING, Alexandria, Va.
Starrett Brothers & Eken, of New York, N. Y., have been awarded a contract for building a 1,800-unit housing project by Metropolitan Life Insurance Co., New York, N. Y. Estimated cost is $7,000,000. Leonard, Schultze and Associates, New York, N. Y. are architects.

TANKS and UTILITIES, Melville, R. I.
Leonard Construction Co., of New York, N. Y., will construct tanks and utility services at Naval Fuel Depot, including heating, water, electric lines and sewerage. Bureau of Yards & Docks, Navy Department, Washington, D. C. let contract on cost plus-fixed-fee basis at $4,250,000.

PLANT, Williamsport, Pa.
Sordoni Construction Co., of Forty Fort, Pa., will construct a 1-story, 380x425-ft. plant to manufacture aircraft engines for Aviation Manufacturing Corp., Lycoming Division. Estimated cost is placed at $630,000.

NOTE—Additional bidding and contract news on over 800 projects large and small appear in the Construction News sections beginning on page 18.

Canadian steel standards revised for buildings

The sectional committee on steel construction of the Canadian Engineering Standards Association has suggested that design stresses might be increased 25 percent on buildings, provided experienced and competent engineers retain responsibility for the design. The provision would apply to buildings used for war purposes and primarily intended for use only until the emergency is over. The committee acted upon request of Canada's steel controller, F. B. Kilbourn, who requested consideration of the matter.

It is estimated that by this allowance for increase in working stresses, over 4,000 tons of steel will be saved annually.

The committee decided, however, that there should be no change in the working stresses for railway and highway bridges, and that in no case must the total stresses in a temporary structure exceed the elastic limit of the steel which, in medium steel, is taken as 33,000 lb. per square inch.

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Highway bridges built in 1940 totaled 2,756

Data compiled from reports of state highway departments for the calendar year 1940 shows that 2,756 bridges of over 20-ft. span were constructed. This included railroad grade separation, which eliminated 320 grade crossings. Pennsylvania led the nation with 398 bridges and 30 grade crossings eliminated; while Illinois was second, with 253 bridges and 25 grade crossings eliminated.

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All hope for non-defense roads abandoned by N. C.

North Carolina's highway and public works commission has announced that because of difficulty in obtaining necessary materials it is considered useless to call for bids on new highway construction except for access roads to military bases or highways considered necessary by the War Department. Contracts now being let are awarded subject to a proviso that priorities for the necessary materials can be obtained.

W. Vance Baise, North Carolina's chief highway engineer, states that highway projects totaling $3,145,000 are being sought by Army and Marine bases in the state under the provisions of the federal defense roads bill. Preliminary surveys of the projects have been made by highway department engineers and detail plans are to be drafted for those projects considered most essential. Fort Bragg, with projects totaling nearly a million dollars, leads the other bases in requests.

Heads AGC chapter again

When the New York State Highway Chapter of the Associated General Contractors of America met at Syracuse last week for a two-day meeting, Dwight W. Winkelman, Syracuse, was reelected president. Also chosen for another term were Vice President Robert P. Bayard of Freeport and Executive Secretary Herbert S. Sisson of Albany.

Directors are: Oscar Anderson, Wantagh; A. L. Blades, Hornell; Elias DeLia, New Hartford; Harry Hill, Binghamton; Peter J. Knickenberg, Buffalo; Pierce Law, Herkimer; Leonard Liberto, Union Springs; C. D. Murray, Syracuse; Jos. Murray, Rochester; and Stanley Di Stefano, Green Island.

Clarence J. Velz named water consultant

Clarence J. Velz, head of the department of civil engineering at Manhattan College, New York, N. Y., has been appointed by the National Resources Planning Board, as water consultant for the Middle Atlantic region.

Mr. Velz has been closely identified with water and pollution problems of this area for a number of years, having conducted surveys under federal and local government auspices in the Hudson River, New York Harbor, and the Elizabeth, Raritan and Hackensack rivers of New Jersey. He will act in an advisory capacity to the Drainage Basin Committees of this vicinity, and assistant in investigation of emergency water and sanitation problems arising from defense activities as well as post-war planning.

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Pennsylvania removes 350,000 roadside signs

Within the past three years, the Pennsylvania Department of Highways has removed more than 350,000 signs and posters illegally erected within the state highway right-of-way, according to I. Lamont Hughes, secretary, Pennsylvania Department of Highways. Approximately one-fifth of the signs were removed between April 15 and Sept. 15, 1941.

Moles award for year to Prentis and Madigan

Edmund A. Prentis (left), of Spencer, White & Prentis, Inc., New York engineers and contractors, and M. J. Madigan of the engineering firm of Madigan & Hyland, were named to receive the 1941 achievement award of The Moles, a New York organization of men engaged in heavy construction. A. M. Stagg of Jersey City, N. J., president of The Moles, announced that these men were selected for the annual award by a committee of which Donald A. Huntley, of the P. T. Cox Construction Company of New York City was chairman.

Mr. Prentis was selected in recognition of his "enterprise, courage and resourcefulness notably in the field of underpinning, foundations, subways, tunnels, dams, mining and drydocks."

Mr. Madigan will be given the achievement award in recognition of his "capacity and forcefulness to conceive, design and accomplish the construction of public works and for his contribution to the national defense."

OBITUARY

EDWARD G. NAGEL, 45, of St. Louis and resident engineer for Earl O. Mills and John Noyes, architectural associates of St. Louis employed on a 600 unit housing project at Wichita, Kan., died Dec. 3.

ARTHUR SHUH, 51, city engineer of Waukesha, Wis., from 1926 to 1934, died Nov. 27. Since April he had been sales engineer for the Butler Bin Co.

HERBERT C. FISHER, 52, assistant city engineer of South Milwaukee, Wis., for the last six years, died Dec. 3. He was formerly associated with H. C. Webster, consulting engineer of Milwaukee.

RODNEY S. BOYCE, 28, civil engineer for the District of Columbia and lieutenant of engineers in the Maryland National Guard, died Nov. 25 in Washington.

BARTHOLOMEW FLYNN, 68, employee of the Louisville, Ky., water company for 45 years and operating engineer, died Dec. 3.

EDWARD G. GUSHEE, 88, civil engineering graduate of Temple University, who retired several years ago after being associated with the Philadelphia water bureau for 43 years, died in that city Dec. 4.

JOHN B. HOWIE, 52, district director of the WPA at Jackson, Miss., died Nov. 29.

THOMAS FLEMING, Jr., 60, member of the board of associates of the California Institute of Technology, died Dec. 3 at Pasadena. Following graduation from Cornell University in 1905 with a civil engineer's degree, he worked at Pittsburgh and during the 1914-1918 World War was civilian engineer in charge of construction at Fort Knox, Ky.

JAMES B. HUNTER, 65, Canada's deputy minister of public works, died in Ottawa, Nov. 30. He had served under fifteen cabinet ministers and held office as senior official of federal department of public works longer than any other deputy minister. He was appointed assistant deputy minister of public works in 1908 and deputy minister later in the same year.

MAURICE A. DRUBECK, 38, mechanical designing engineer, city of Chicago division of water purification, died in auto accident near Lebanon, Mo., Nov. 20.

MALCOLM W. ORR, 48, civil engineer and plant manager of Charles Lanning & Co., manufacturing chemists, died Nov. 19 at Torresdale, Pa.

WILLIAM L. YOKOM, 58, general contractor and head of the W. L. Yokom, Inc., Dubuque, Iowa, died recently. He was president of the Master Builders of Iowa in 1940.

MAXWELL WHITELAW, 57, retired architect and engineer, died recently at Miami, Fla. He was organizer of the Engineering Corps, a group of ex-service men, and a past commander of the American Legion Post at New York.

WILLIAM M. GOLTRA, 41, civil engineer with the Ohio State Highway Commission, died at Crawfordsville, Ind., Nov. 28.

JOSEPH T. HERZA, 83, retired assistant superintendent of construction for the Postal Telegraph Co., died Nov. 26 at Chicago, Ill.

AUSTIN K. TIERNAN, civil engineer in the right-of-way department of the Southern California Edison Co., died recently in Los Angeles, Calif.

PARKER W. HASTINGS, civil engineer of Billings, Mont., died recently at Rochester, Minn.

HOWARD A. DILL, 72, died Nov. 22 at Richmond, Ind. Mr. Dill, until two years ago, was superintendent of the Richmond Water Works Corporation.

JOHN H. TWINING, 83, died Nov. 21 at Fostoria, Ohio. Mr. Twining had been superintendent of the Fostoria Water Works for 26 years.

GEORGE MARQUART, 87, former chief engineer of the Sandusky, Ohio, water works, died Nov. 24 at Sandusky.

ADOLF L. RAKE, 74, head of the contracting firm of A. L. Rake & Son, East Stroudsburg, Pa., died Nov. 9.

CONTRACTS AND CAPITAL

ENGINEERING CONSTRUCTION awards for the week, $59,065,000, are 37 percent below a week ago, and 28 percent lower than in the corresponding 1940 week.

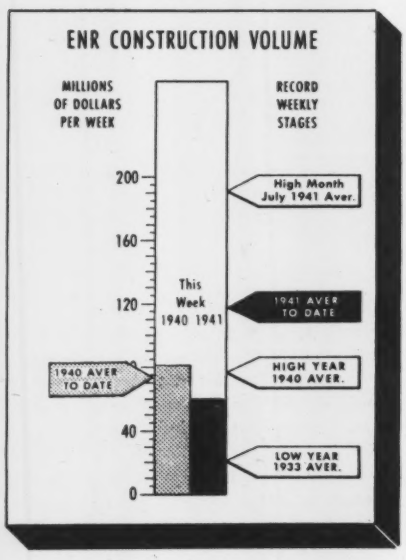
Private awards are up 194 percent compared with a week ago, and 18 percent above a year ago due to the increased volume of commercial and industrial buildings. Public construction is 62 percent lower than in the preceding week, and 45 percent under the week last year.

The current week's awards bring 1941 construction to $5,751,563,000, an increase of 52 percent over the volume for the 50-week period last year. Private awards for the period are 5½ percent above a year ago, and public construction is 71 percent higher as a result of the 154 percent gain in federal work.

In the classified construction groups, gains over last week are in bridges, industrial and commercial buildings, earthwork and drainage, streets and roads, and unclassified construction. Increases over the 1940 week are in waterworks, sewerage, bridges, commercial buildings, earthwork and drainage, and unclassified.

New capital for construction purposes for the week totals $23,062,000. This compares with $97,748,000 for the week last year. The current week's financing is made up of $22,754,000 in state and municipal bond sales, and $308,000 in corporate security issues.

New construction financing for the year to date, $6,319,656,000, is 63 percent higher than the $3,877,994,000 reported for the 50-week period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending Dec. 12 1940	Dec. 4 1941	Dec. 11 1941
Federal	$41,892	$70,895	$18,240
State & Municipal	17,259	13,488	14,119
Total public	$59,151	$84,383	$32,359
Total private	22,574	9,105	26,706
TOTALS	$81,725	$93,488	$59,065
Cumulative 1941 (50 weeks)			$5,751,563
1940 (50 weeks)			$3,780,767

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1940 50 weeks	1941 50 weeks
NON-FEDERAL	$1,596,033	$1,368,538
Corp. Securities	386,462	357,434
State & Mun.	570,955	428,363
U.S.H.A. loans	218,704	30,399
R.F.C. loans	195,912	288,842
R.E.A. loans	40,000	100,500
Federal Aid—Hwy.	184,000	163,000
FEDERAL	$2,281,961	$4,951,118
TOTAL CAPITAL	$3,877,994	$6,319,656

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Dec. '41	266.16	127.94
Building Cost	Dec. '41	216.37	116.96
Volume	Nov. '41	282	124

CONTRACT UNIT PRICES

What contractors are bidding on different kinds of construction work

BRIDGE AND APPROACHES MONTANA

OWNER: Federal Works Agency, Public Roads Admin., Portland, Ore.; W. H. Lynch, district engineer.

PROJECT: Construction of steel and reinforced concrete bridge over Clark Fork River and tracks of Northern Pacific Railway, together with approach grading, surfacing, and bituminous surfacing Yellowstone Trail Highway, Cabinet National Forest, Mineral County, Montana. Bridge approximately 0.1489 mi. long, and has 26-ft. roadway.

CONDITIONS: Contractor to furnish all materials other than required in the miscellaneous force account work. Rail and highway transportation facilities available. Wage rates are: skilled labor, $1.20 per hr.; semi-skilled, 90 to 75c.; and common, 62½c.

BIDS: Ten bids were opened October 22, 1941, ranging from the contract low of $173,579 to $284,760.

LIST OF BIDDERS:

1. Roy L. Bair, Spokane, Wash. (contract) $173,579
2. Henry Hagman, Cashmere, Wash. 180,825
3. Portland Bridge Co., Portland, Ore. 183,883
4. McLaughlin Constr. Co., Livingston, Mont. 189,972
5. Frank J. Haas, Great Falls, Mont. 194,854
6. W. P. Roscoe Co., Billings, Mont. 198,147
7. C. J. Montag & Sons Co., Portland, Ore. 202,695
8. Peter Kiewit Sons' Co., Omaha, Neb. 219,398
9. Thomas Staunton, Great Falls, Mont. 227,748
10. Nolan Bros., Inc., Minneapolis, Minn. 284,760

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Maintain existing road	L. S.	$300.00	$300.00	$300.00
2. Extra and misc. force account work	L. S.	1,500.00	1,500.00	1,500.00
3. Clearing	1.5 ac.	100.00	100.00	50.00
4. Grubbing	1 ac.	100.00	50.00	50.00
5. Unclassified excavation	600 c. y.	.40	1.00	.25
6. Uncl. excav. for pipe struct	50 c. y.	1.50	1.00	1.00
7. Uncl. excav. for bridge structures	2,800 c. y.	5.70	7.00	3.00
8. Uncl. excav. borrow	30,000 c. y.	.30	.27	.25
9. Special overhaul	28,000 sta. y.	.02	.02	.01
10. Roadside cleanup	1 ac.	100.00	100.00	50.00
11. Gravel base course	2,700 c. y.	1.50	1.40	1.10
12. Watering	120 M gal.	2.00	2.00	2.00
13. Provide and maintain water plants	L. S.	100.00	200.00	100.00
14. B-1 road mix surfacing laid	0.383 mi.	2,500.00	2,500.00	2,000.00
15. SC-3 grade asph. for Cl. B road mix	45 ton	35.00	40.00	30.00
16. RC-1 grade asph. for Cl. B seal	4 ton	60.00	65.00	40.00
17. Class A concrete	843 c. y.	24.50	24.00	40.00
18. Class B concrete	902 c. y.	24.50	23.00	15.00
19. Class D concrete	1,020 c. y.	24.50	23.00	40.00
20. Class S concrete	187 c. y.	24.50	23.00	15.00
21. Reinforcing steel	279,000 lb.	.065	.074	.08
22. Structural steel	2,500 lb.	.20	.20	.20
23. Structural steel (erected)	833,700 lb.	.025	.04	.03
24. Steel handrail	1,500 l. f.	6.40	6.00	9.50
25. 18-in. std. rein. conc. culv. pipe	85 l. f.	2.50	3.00	4.00
26. 18-in. corr. galv. sheet metal pipe	54 l. f.	2.00	3.50	4.00
27. 8-in. bit. coated corr. sheet metal pipe, type 2	140 l. f.	1.60	2.00	1.50
28. Untreated timber piling	4,900 l. f.	1.00	.60	.40
29. Treated timber piling	6,100 l. f.	1.80	1.00	.60
30. Hand laid rock embankment	25 c. y.	5.00	4.00	4.00
31. Concrete guide posts	80 ea.	4.00	4.00	5.00
32. Spillway inlet, bit. coat. corr. sheet metal pipe, type 2	4 ea.	40.00	40.00	30.00

HIGHWAY, MISSOURI

OWNER: State Highway Commission, Jefferson City, Mo.

PROJECT: Grading, constructing culverts, and producing crushed stone for coarse aggregate, together with incidental work, on State Route 66, Pulaski County, near Fort Leonard Wood from Big Piney River east through Hooker Hill Cut.

CONDITIONS: Contractor to furnish all materials and complete work in 180 working days. Rail and highway transportation facilities available. Minimum wages specified are: skilled labor, 80c. per hr.; semi-skilled, 50c.; and common, 40c.

BIDS: Four bids were opened September 5, 1941, ranging from the contract low of $244,889 to $343,325.

LIST OF BIDDERS:

1. Fred Weber, Jr., St. Louis, Mo. (contract) $244,889
2. Gillioz Co., Inc., Monett, Mo. 314,293
3. Porter-DeWitt Constr. Co., Wappapello Dam, Mo. 317,351
4. O'Dell-Riney Constr. Co., Hannibal, Mo. 343,325

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Clearing	21.5 ac.	$75.00	$150.00	$100.00
2. Grubbing	21.5 ac.	75.00	50.00	50.00
3. Class A excavation	79,137 c. y.	.27	.60	.40
4. Class C excavation	198,622 c. y.	.77	.90	.94
5. Class 3 excavation, structures	995 c. y.	2.00	3.00	1.25
6. Compact embankments (roll)	86,610 c. y.	.01	.05	.05
7. Compacting in cuts (roll)	110 c. y.	1.00	.10	.30
8. Overhaul	21,800 ¼-yd. mi.	.05	.08	.20
9. Broken stone	3,010 c. y.	2.00	1.50	1.40
10. Screenings	4,072 ton	2.00	2.50	1.00
11. Water (for compact. and roll)	15,610 hund.gal.	.01	.10	.10
12. Class B conc. (box culv.)	337.2 c. y.	25.00	30.00	30.00
13. Class B conc. (other than box culv.)	26.4 c. y.	50.00	35.00	35.00
14. 15-in. corr. met. culv. pipe	346 l. f.	1.75	2.00	1.70
15. 18-in. corr. met. culv. pipe (entrance and side road)	94 l. f.	2.50	2.25	2.00
16. 30-in., as above	112 l. f.	4.25	3.00	3.80
17. 15-in. rein. conc. pipe (cross road)	184 l. f.	2.00	2.50	2.20
18. Reinforcing steel	29,050 lb.	.06	.06	.06
19. Range rubble masonry	141.7 c. y.	15.00	12.00	20.00
20. Class A, type I, underdrains	374 l. f.	1.00	1.75*	1.40*
21. Steel grates and bearing plates	250 lb.	.30	.25	.30
22. Coarse aggr. for Cl. B. conc. masonry	8,000 ton	.40	.50	.70
23. Coarse aggr. for pl. conc. pavmt.	75,000 ton	.40	.50	.70

** Type 4 underdrain.*

EARTHWORK AND STRUCTURES MONTANA

OWNER: Bureau of Reclamation, Fairfield, Mont.

PROJECT: Earthwork and structures for open drains, Greenfields division, Sun River project, Montana. Work located near Fairfield and Ashuelot, Mont. Much of work on structures to be carried on during period when irrigation water is being delivered to growing crops.

CONDITIONS: Government to furnish cement, reinforcing bars, corrugated metal pipe, lumber (excepting for forms), fencing material. Contractor to furnish balance of material and complete work in 350 calendar days. Rail and highway facilities available to Fairfield and Ashuelot. Minimum wage rates specified are: skilled labor, $1.00 to $1.20 per hr.; semi-skilled, 65 to 95c.; and common, 65c.

BIDS: Eleven bids were received November 7, 1941, ranging from the low of $44,880 to $97,475.

LIST OF BIDDERS:

1. Williams Constr. Co., Helena, Mont. $44,880
2. Ray Schweitzer, Los Angeles, Calif. 48,318
3. Elmer Genger, Fairfield, Mont. 54,535
4. J. L. McLaughlin, Great Falls, Mont. 54,590
5. Barnard Curtiss Co., Minneapolis, Minn. 58,833
6. Union Constr. Co., Great Falls, Mont. 58,835
7. Vernon Bros. Co., Boise, Idaho 67,375
8. Hugh McConnell, Missoula, Mont. 72,943
9. E. O. Howe, Great Falls, Mont. 76,110
10. J. W. Merz, Inc., Helena, Mont. 84,375
11. Peter Kiewit Sons' Co., Omaha, Neb. 97,475

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Excavation for drains	525,000 c. y.	$0.07	$0.08	$0.075
2. Excavation for structures	18,000 c. y.	.10	.001	.30
3. Backfill about structures	25,000 c. y.	.10	.10	.20
4. Puddle bkfill. about struct	1,850 c. y.	.20	.20	.20
5. Concrete in structures	130 c. y.	15.00	18.00	18.00
6. Place reinforcing bars	8,000 lb.	.02	.02	.025
7. Laying 15-in. corr. pipe	1,200 l. f.	.20	.15	.30
8. Laying 24-in. corr. pipe	3,600 l. f.	.30	.20	.40
9. Move excavating machine	2 mi.	15.00	15.00	25.00

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: All low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

D. C., Wash.—Dist. Comrs., District Bldg., plans 30 in. gravity main Anacostia Ave. to Firth Stirling and Stevens Rd.; 24 in. main Anacostia 1st High, Reservoir to Nichols Ave. 10 m.g.d. pump, Dalecarlia, on Arlington 3rd High; 6 in. filters, etc. Dalecarlia.

†La., Alexandria—City, W. G. Bowden, mayor, WW sys., Docket La. 16-117. $333,000. **DPW.** I. W. Sylvester, city engr. CD 10/28—ENR 10/30.

La., Pineville—$200,000 bond election soon, imprv., exten. WW and sewerage sys. $323,000.

Mass., Chicopee—Water Dpt., City Hall, 30 in. pipeline between Chicopee and Springfield. Over $15,000.

Mass., Hamilton—Water Dpt., Town Hall, WW sys., exten. distr. sys., etc. $60,000. Norse, Dickinson & Goodwin, 25 Washington Sq., Haverhill, engrs.

Mass., Lynn—Water Dpt., City Hall, preliminary survey 1 m.g. reservoir, Great Woods Rd. Over $15,000.

★**†Mass., Springfield**—City, 40,000 lin. ft. 50 in. steel supply line from West Parish Filtration Plant to Brevin Mountain Reservoir. Docket Mass. 19-106. $1,000,000. **DPW.** CD 7/23—ENR 7/31.

N. Y., New York—Dpt. Water Supply, Gas & Electricity, Municipal Bldg., New York, well developments, incidental pump. and iron removal plants, Rockaway, Queens Boro, $322,000; modernizing, rehabilitating South St. high pressure fire service pump. sta., $250,000.

N. Y., Niagara Falls—W. D. Robbins, city mgr., extens. and new c.i. watermains. $132,000. H. W. Clark, city engr.

N. Y., North Beach—Dpt. Docks, Pier A, North River, New York, water services for sea plane base, Municipal Airport 2, La Guardia Field. $35,000.

N. Y., Romulus—Water Dist., WW. $48,000.

†N. C., Wilmington—City voted $525,000 bonds water sys., Docket N. C. 31-119. **DPW.** CD 11/11—ENR 11/13.

†O., Newton Falls—Village, WW sys. addn., Docket Ohio 33-123. $81,512. **DPW.** CD 11/3—ENR 11/6.

Okla., Inola—WW sys. $60,000. Applied for DPW gr. R. Collins, McAlester, engr.

†Okla., Lawton—City, exten. distr. sys., water treatment plant addns., etc., Docket Okla. 34-110. $203,600. **DPW.**

Okla., Locust Grove—WW sys. $100,000. Applied for DPW gr. R. Collins, McAlester, engr.

†Tex., Brownwood—City, W. Mayes, mayor, WW imprvs., Docket Tex. 41-116. $320,000. **DPW.** Julian Montgomery, Littlefield Bldg., Austin, engr. CD 11/24—ENR 11/27.

†Tex., Galena Park—City, R. Du Bose, mayor, bids soon WW extens., imprvs., Docket Tex. 41-330. $69,017. **DPW.** H. G. Olmstead, Box 1016, Houston, engr. CD 12/4.

Tex., Hawkins—C. W. Cumbie, mayor, bids in January, WW sys. $55,000. Albert C. Moore & Co., 2404 Smith-Young Tower, San Antonio, engrs. CD 9/23—ENR 9/25.

Tex., Houston — Harris Co. Fresh Water Imprvt. Dist. 11, c/o G. H. McCormick, 7031 Foster St., WW sys., elevated storage and ground storage tanks, deep well, etc. $250,000. Applied for DPW funds. Garrett Eng. Co., 3504 N. Audubon St., engrs.

Utah, Kaysville—T. E. Swan, mayor, expanding culinary WW sys. $29,582. Applied for DPW gr. A. Z. Richards, city engr.

†Utah, South Ogden—Town, 500,000 gal. concrete reservoir and connections, Docket Utah 42-901, $73,620; WW extens., Docket Utah 42-106, $32,985. **DPW.**

†Va., Radford—City, watermain extens., addns., Docket Va. 44-223. $118,400. **DPW.**

Wash., Bellingham—Whatcom Co. Pub. Utility Dist., WW sys. between Bellingham and Marietta. F. McElmon, Herald Bldg., engr.

Wash., Everett—Pinehurst Water Dist., bids soon furnishing 55,000 ft. 2- to 8-in. pipe, valves, fittings, etc. for WW., extens. Parker & Hill, Smith Tower, Seattle, engrs. CD 9/17—ENR 9/25.

Wis., La Crosse—Rejected bids Sept. 9, iron removal plant, drilling test wells. $15,000. J. H. Barth, city engr. CD 9/26—ENR 10/2 under LB.

†Alaska, Kodiak—DPW Office, Alaska Bldg., Seattle, Wash., bids early in March, water supply and distr. sys. $77,000. L. R. Durkee, Alaska Bldg., Seattle, Wash., regional DPW dir.

B. C., Nanaimo — WW imprvs. $20,000. A. G. Graham, Town Hall, engr.

B. C., Saanich—Municipality defeated proposition to construct WW imprvs. H. Allen, Town Hall, engr. CD 11/25—ENR 12/4.

Ont., Belleville—Rein.-con. reservoir. $35,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Windsor—18 in. watermain. $28,000. R. J. Desmarais, Town Hall, engr.

Que., Kenogami—WW exten., iron mains, 2 streets. $20,000. A. Biledeau, Town Hall, engr.

BIDS ASKED

Bids Asked December 18

†N. Y., Camp Upton—Con. Q.M., Camp Upton, well, pump house, equip., 3,000 lin. ft. 8 in. water-main and specials to hospital, altering Pump House Bldg. T-77; adv. ENR 12/11.

Bids Asked December 19

†Tenn., Tullahoma—At office E. H. Campbell, city recdr., City Hall, Shot Springs structures, pump. equip., 12 in. supply main, distr. mains and sewers in connection with water supply and sewerage project, Docket Tenn. 40-103. **DPW.** CD 9/8—ENR 9/11.

Bids Asked December 29 or 30

Minn., Chaska—City, F. U. Spletteisesser, 350,000 gal. concrete reservoir. Over $15,000. Tentative date. Druar & Milinowski, 1421 Pioneer Bldg., St. Paul, engrs. CD 11/6—ENR 11/13.

LOW BIDDERS

Calif., San Diego—City, Nov. 25, constructing, 36 St. water pipe line, from H. L. Foster, 3260 Main St. **$37,149.** CD 11/13.

†Calif., Santa Ana—U. S. Eng., 751 S. Figueroa St., Los Angeles, Nov. 28, water supply sys. at Santa Ana—West Coast Replacement Center, from Vinson & Pringle, 2505 W. 6 St., Phoenix, Ariz., **$45,961.** CD 11/19.

★**Ill., Chicago**—O. E. Hewitt, Comr. P. Wks., Nov. 14, superstructures low lift pump. sta. and filter and administration bldg. South Dist. Filtration Plant, E. 79 St. and Lake Michigan, from Paschen Bros. Constr. Co., 221 N. La Salle St., **$2,091,763.** CD 10/27—ENR 10/39.

Me., York—Kittery Water Dist., Bd. Trustees, Nov. 27, WW sys., dams, etc., from K. L. Jones, 26A Charles St., Rochester, N. H. **$49,655.** CD 11/21.

†Tex., Freeport—City, R. J. Fields, town clk., Dec. 1, WW imprvs., Docket Tex. 41-263, from Gayle Bros., 808 Blodgett St., Houston. **$77,243.** Est. $139,700. **DPW.** CD 11/19.

Wash, Orting—City, Nov. 24, furnishing 23,373 ft. 4- to 10-in. pipe for WW. exten., from Pacific Water Works Supply Co., 2900 1 Ave., S., Seattle. **$26,500.** CD 10/27—ENR 10/30.

CONTRACTS AWARDED

Calif., San Diego — Pipe, fittings for WW imprvs. 36 St., to U. S. Pipe & Fdry. Co., 448 S. Hill St., Los Angeles. **$52,000.** Bids 11/25. CD 11/13.

†Calif., Stockton — Con. Q.M., Fort Mason, San Francisco, exten. water, gas and sanitary sewerage sys., for Specialists Mechanics School, to R. Goold, 330 E. Weber Ave. **$18,978.** Bids 11/28. CD 11/24.

†D. C., Wash. — U. S. Eng., 1 and Douglas Sts. N.W., modification strainer sys., Dalecarlia Filtration Plant, Montgomery Co., Md., to George C. Martin, 6346 31 St. N.W., **$15,250.**

†Fla., Eglin Field—U. S. Eng., Federal Bldg., Mobile, Ala., 7 water wells, auxiliary fields, to Stevens Southern Co., Mitchell Bldg., Jacksonville. **$29,750.** Bids about 9/25, awarded 12/5. CD 9/18.

N. J., East Orange—Town., imprv. WW supply, in Livingston. **WPA. $38,500.** W. Willegarod, Town Hall, engr. CD 11/17—ENR 11/20, under Livingston.

Pa., Northampton—Northampton Boro Municipal Auth., c/o R. S. Frable, burgess, WW exten., replacements, imprvs., and distr. sys. **WPA. $35,000.**

Pa., Phila.—Dpt. P. Wks., Bureau Water, City Hall Annex, watermains, to John Meehan & Son, 916 W. Dakota St., **$44,000.** Bids 10/27. CD 10/22.

Tex., Waco—Commissioners Court, McLennan Co., c/o Judge, Waco, WW. to Layne-Texas Co., 6931 Harrisburg Rd., Houston. **$33,980.**

Alta., Airdrie—Dpt. National Defense for Air, Ottawa, Ont., installing water and sewerage sys., Relief Intermediate Aerodrome, to Buchan Constr. Co. Ltd., 1300 11 Ave. W., Calgary. **$19,000.**

B. C., Kamloops—Dominion Govt., Ottawa, Ont., water supply sys., to G. E. Baynes, 846 Howe St., Vancouver. **$16,000,** Dpt. Munitions & Supply, Ottawa, Ont., engrs.

B. C., Baylaigh Mount—Dpt. National Defense for Air, Ottawa, Ont., water service and fire prevention, water supply, No. 15X Depot, to G. E. Baynes, 846 Howe St., Vancouver. **$16,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Calif., Salinas — City, $245,000 bond election Jan. 13 enlarging sewage disposal plant

SEWERS (Proposed Work, Cont'd.)

and treatment plant, sewer mains, Docket Calif. 4-142. **DPW** approved $195,000 gr. H. N. Jenks, 345 Madrone Ave., Palo Alto, engr. CD 11/12—ENR 11/20.

Calif., Santa Barbara—$165,000 bond election soon incinerator, equip. for universal garbage and refuse collection sys.

D. C., Wash.—Dist. Comrs., District Bldg., sewage treatment plant, District Training School, near Laurel, Md.

Ga., Hinesville—T. W. Welborn mayor, sewer and WW sys. $128,000.

Ill., Milan—Sewer and watermain project. $90,000. Will apply for DPW funds. Stanley Eng. Co., Muscatine, Ia., engr. CD 11/10—ENR 11/13.

†**Ind., Kingsbury-La Porte**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., cancelled bids to have been opened Dec. 5, offsite sewer and water main, Defense Housing Project. Project withdrawn from market. CD 11/26.

Ia., Sioux City—Storm and sanitary sewers between Half Moon Lake and Floyd River. $100,000. K. Gaynor, city engr.

Kan., Pittsburg — Repairing, exten. sewer lines, imprv. sewage disposal plant. $360,000. Application filed with DPW.

Mass., Springfield—P. Wks. Dpt., City Hall, preliminary plans sewer exten., pump. sta., Carew St. sect., East Springfield. $25,000.

†**Mich., Centerline**—City, sewerage facilities, Docket Mich. 20-160. $55,820. **DPW.** C. P. McGrath, 116 Clinton Rd., Mt. Clemons, engr. CD 11/7—ENR 11/13.

†**N. J., Bellmawr**—Boro, sewage disposal plant, pump. station, force main outfall sewer, etc., Docket N. J. 28-114. $146,000. **DPW.** W. Mac Namara, 101 N. 7 St., Camden, engr.

N. J., Wrightstown—Boro, bids soon sewage disposal plant. $75,000. W. A. Goff, 1411 Broad St. Station, Phila., Pa., engr.

★**N. Y., Brooklyn**—Dpt. P. Wks., Municipal Bldg., New York, Newtown Creek sewage treatment works. $6,600,000.

N. Y., Brooklyn—President Brooklyn Boro, Hall, sewers W. 12 St. $100,000.

★**N. Y., Buffalo**—Dpt. P. Wks., City Hall, garbage incinerator. $500,000.

N. Y., Jamaica—President Queens Boro, 120-55 Queens Blvd., Kew Gardens, combined trunk sewer, 162 St.-75 Rd., 73 Ave. and adjoining territory. $43,500.

N. Y., Jamaica—President Queens Boro, 1250-55 Queens Blvd., Kew Gardens, sanitary sewers, Rockaway Blvd., Oregon Pl., Cranston St., 134, 135 and 136 Aves. $25,200.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., intercepting sewer for lower Manhattan, Battery Park sect. $400,000.

★**N. Y., New York**—Dpt. Sanitation, 125 Worth St., enclosed waterfront disposal station, Grand St. and East River, $500,000; enclosed waterfront disposal station, W. 59 St. and North River.

N. Y., New York—President Bronx Boro, 851 Grand Concourse, sewers, appurtenances, Calhoun Lawton and Revere Aves. $47,400.

N. Y., Niagara Falls—W. D. Robbins, city mgr., storm and sanitary sewers. $349,000. H. W. Clark, city engr.

N. Y., St. George—President Richmond Boro, Boro Hall, sanitary relief sewer, Dwight St. $26,000.

†**N. C., Wilmington**—City voted $100,000 bonds incinerator, $75,000 bonds, storm sewers, $35,000 bonds, sanitary sewers, Docket N. C. 31-117. **DPW.** CD 11—ENR 11/13, also 10/23—ENR 10/30 under WW.

†**O., Ravenna**—City, trunk sewers, sewage treatment plant, Docket Ohio 33-120. $263,635. **DPW.** CD 7/15—ENR 7/17.

O., Silver Lake (P. O. Akron)—R. Summers, village clk. voted bonds, 750 ft. 14 in. c.i. or steel pipe, 3,300 ft. force main, 6 in. c.i. or steel pump. station and sewage ejectors. $50,000. E. D. Barstow, 31 N. Summit St., Akron, engr.

†**Okla., Lawton**—City, sewer trunk lines, sewage treatment plant addn., Docket Okla. 34-319. $319,000. **DPW.**

Okla., Locust Grove—Sanitary sewerage sys., sewage disposal plant. $80,000. Applied for DPW gr. R. Collins, McAlester, engr.

†**Pa., Hatboro**—Borough of Hatboro and Twp. of Upper Moreland, sewage treatment plant addn., Docket Pa. 36-112, 48,700. **DPW.**

†**Pa., New Kensington**—City, 1,800 lin. ft., 8 in. sanitary sewer, Docket Pa. 36-139. $6,500. **DPW.**

Pa., Oil City—C. S. Hetrick, city clk., 1,020 ft. vitr. or concrete sewers, 920 ft. 12 in. same manhole covers, etc. $25,000. B. B. Webber, city engr.

†**Pa., Willow Grove**—Upper Moreland Twp., trunk sewer, Docket Pa. 36-131. $10,400. **DPW.**

†**Tex., Galveston**—City, B. Harris, mayor, incinerator, Docket Tex. 41-245. $152,432. **DPW.** H. E. Burns, Box 2623, Dallas, engr. CD 12/3.

†**Tex., West University Place (mail Houston)**—City, c/o H. L. Kerbow, mayor, bids soon sanitary sewer imprvs., Docket Tex. 41,240. $352,500. **DPW.** Garrett Eng. Co., 3504 Audubon St., Houston, engrs. CD 12/4.

†**Wash., Bremerton**—Regional DPW Office, Alaska Bldg., Seattle, bids soon, sewerage sys., 52,830 ft. 6- to 24-in. pipe, etc., in Navy Yard City Dist., for Sewer Dist. 1, Docket Wash. 45-172. $150,000. **DPW.** Parker & Hill, Smith Tower, Seattle, engrs. CD 12/3.

†**W. Va., Suncrest**—Town, 20,000 ft. sanitary sewers, Docket W. Va. 46-123. $55,041. **DPW.**

B. C., Vancouver—Municipality, incinerator, site of present trestle, north side of False Creek, head of Columbia St. $40,000.

Ont., Kingston—Wartime Housing, Ltd., 55 York St., Toronto, bids soon sewage treatment plant, concrete septic tanks and chlorination chamber, near Joseph St. $30,000.

Ont., Windsor—Imprvs. sewerage sys. $32,000. R. J. Desmarais, Town Hall, engr.

BIDS ASKED

Bids Asked December 23

Calif., Los Angeles—Los Angeles Co., Hall of Records, sanitary sewers, Gafford St., etc., Co. Impvt. 1047. $65,486. A. Jones, Hall of Records, engr. CD 10/29—ENR 11/6.

†**Colo., Pueblo**—Defense Pub. Wks. Div., FWA, 800 Central Savings Bldg., Denver, constructing East Mesa sanitary sewerage sys., incl. 11,817 lin. ft. 6 to 8-in. sewer pipe, 510 lin. ft. river crossing and constructing Minnequa Heights sanitary sewerage sys., both near here, for Comrs. Pueblo Co. on behalf of East Mesa Sanitary Dist. (district to be formed) Docket Colo. 5-103. **DPW.** E. Rizer, Pueblo, engr. CD 10/6 ENR 10/9.

Bids Asked December 29

Pa., Union City—Boro, disposal plant units. Hill & Hill, 24½ Main St., North East, engrs.

Bids Asked About January 1

†**Colo., Denver**—U. S. Eng., Denver, sewage treatment plant, trickling filter type, Fitzsimmons Hospital. $70,000. R. J. Tipton Eng. Co., 1st Natl. Bank Bldg., engrs.

Bids Asked January 6

N. J., Trenton—Hamilton Twp. Com., 2090 Greenwood Ave., Trenton, incinerator. $35,000. H. L. Mack, 2090 Greenwood Ave., Trenton, archt. CD 12/4.

LOW BIDDERS

Conn., Stamford—J. F. Connolly, comr. Finance, City Hall, Nov. 25, sludge equip., from Combustion Eng. Co., 200 Madison Ave., New York, N. Y., **$54,590*****electrical work, from T. J. Ealahan, 48 Dell St., New London, **$73,916*****heating, ventilating, from James H. Martin, Inc., 1841 Bway., New York, N. Y., **$29,872.** CD 10/15—ENR 10/23.

†**Okla., Dawson**—Town, Nov. 26, sanitary sewerage sys., Docket Okla. 34-102, from Standard Paving Co., 2119 E. 11 St., Tulsa. **$80,824. DPW.** CD 10/21—ENR 10/23.

CONTRACTS AWARDED

†**Ariz., Mesa**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., sewer, water, gas mains, etc., Mesa Military Airport, to Del E. Webb Constr. Co., 1633 W. Jefferson St., Phoenix. **$272,646.** Awarded 11/25.

†**Ga., Fort Benning**—U. S. Eng., Fort Benning, sewage treatment facilities addn., to G. S. Bartholomew, Columbus. **$235,000.** Bids 11/25.

N. J., Livingston—9 mi. sanitary sewers, force main, pump. station, near Livingston Center, Sect. 2, **WPA. $85,000.** Bids 11/17 rejected. T. F. Bowe, 110 William St., New York, N. Y., engr. CD 11/28—ENR 12/4.

N. J., Newark—24 in. concrete sewer line, Prince St., **WPA. $51,741.** J. Costello, City Hall, WPA and city engr. CD 10/31—ENR 11/6.

N. J., Wildwood — Sewers, Magnolia and New Jersey Aves. **WPA. $135,000.**

Tex., Fort Worth—S. H. Bothwell, city mgr., storm sewers, inlets, manholes, White Settlement Rd. **WPA. $187,682.** W. O. Jones, Fort Worth, dir. P. Wks.

Tex., Houston—Storm sewerage sys. addns., to Texas Gulf Constr. Co., 2008 Wayside Dr. **$131,600.** Garrett Eng. Co., 3503 Audubon St., engr.

Tex., Lubbock—Storm sewer and water supply lines, WPA. $57,656.

†**Utah, Ogden**—Con. Q.M., Ogden Ordnance Depot, chlorinator house, 2 sewage pump. stations, incl. transformer vault, etc., to James J. Burke & Co., Kearns Bldg., Salt Lake City. **$70,000.** Bids 11/25.

Sask., Sturdee (near Yorkton)—Dpt. National Defense for Air, Ottawa, Ont., sewer and water sys., Relief Intermediate Aerodrome, to Henry Borger & Son, Ltd., 194 Osborne St., Winnipeg, Man., **$36,000.**

BRIDGES GRADE CROSSINGS

PROPOSED WORK

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, cancelled bids to have been opened Dec. 1, rein.-con. bridge over Los Angeles River, Firestone Blvd., Los Angeles Co., Inv. 115. Over $200,000. Will not readvertise. CD 10/22—ENR 10/30.

★**Fla., De Land**—Comrs. Volusia Co., De Land, bridge over Halifax River, Ormond, $600,000; bridge, Port Orange, $350,000; Bway. bridge connecting mainland with Peninsula, Daytona Beach, $600,000. CD 11/6—ENR 11/13.

Ill., Chicago—Reconstructing, widening-steel hy. bridge, approaches, curbs, sidewalks, drainage structures, Irving Park Blvd., north branch Chicago River, $150,000 M.F.T. funds; subway, approaches, curbs, sidewalks, drainage structures, Cicero Ave. near 54 St., under tracks Ind. Harbor Belt, and Chicago & Western Indiana R.R. $145,000 M.F.T. funds. G. H. Baker, Centennial Bldg., Springfield, structural engr. co. roads and city streets.

Missouri—State Hy. Comn., Jefferson City, one 160 ft. and two 100 ft., rein.-con. open spandrel arch span, four 50 ft. and one 45 ft., rein.-con. deck girder span bridge over Big Piney River, Waynesville-Rolla Rds., Route 66, Proj. FA 176 B5; two 12 ft., rein.-con. slab spans, culvert type, over Thread Hooker Hollow, Waynesville-Rolla Rd., Route 66, Proj. SN FA 176 11, both Pulaski Co.; one 40 ft. spandrel filled concrete arch foundations, under connecting ramp, McCutcheon Rd., Wentzville-St. Louis Rd., Route 40 TR Proj. SN FA 623 B2; two 62 ft. continuous frame spans, etc., under McCutcheon Rd., same road, both St. Louis Co.; three 25 ft. continuous concrete slab spans over Wolf Creek, Route 25, Proj. FA 187-4; three 25 ft. continuous concrete slab spans over Swan Pond Ditch, Route 25, Proj. FA 187-3; three 25 ft. continuous concrete slab span bridge over Main Ditch Dist. 17, Route 25, Proj. FA 187-3; three 25 ft. continuous concrete slab spans over branch Wolf Creek, Route 25, Proj. FA 187-4; three 25 ft. continuous concrete slab spans over flow of Main Ditch Dist. 17, Route 25, Proj. FA 187-3, all foregoing on Advance-Bloomfield Rd., Stoddard Co. C. W. Brown, Jefferson City, engr.

N. J., Paterson—Bd. Freeholders, Passaic Co., Administration Bldg., Paterson, rejected bids Nov. 19, Bridge 4, Union Valley Rd., West Milford. Will readvertise. G. Ferguson, Administration Bldg., engr. CD 11/13—ENR 11/20.

N. Y., Bath—Steuben Co. Hy. Dpt., county-owned bridge repairs, imprvs. $30,000-$40,000. W. G. Kellogg, supt. Co. Hy. Dpt.

N. Y., New York—President Manhattan Boro, Municipal Bldg., East River Dr. viaduct, along Marginal St. from 18 to 23 Sts. $72,000.

★**N. Y., New York**—President Bronx Boro, 851 Grand Concourse, removing existing bridges, appurtenances, crossing tracks of New York, New Haven & Hartford R.R., Longfellow Ave. near Eastern Blvd., and in Eastern Blvd. near Whitlock Ave.; reconstructing bridge, approaches, carrying Eastern Blvd. over New York, New Haven & Hartford R.R. between Whitlock Ave. and Whittier St. $500,000. Madigan-Hyland, 28-04 41 Ave., Long Island City, engrs.

Pa., Northampton—Boro Council, J. Immel, boro mgr., steel, concrete hy. bridge over Dry Run. $62,000.

★†**Virginia**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., and Pub. Roads Admin., 515 14 St. N.W., Wash., D. C., plans 15 mi. system of one-way express highways of 2, 3 and 4 lanes, for service of new War Dpt. Bldg., incl. 2 bridges, 19 grade separation structures, grading, landscaping, etc. $7,000,000.

BIDS ASKED

Bids Asked December 16

Iowa—State Hy. Comn., Ames, 6 rein.-con. box culverts, extens., County Trunk Rd. E. FM-4, 3 rein.-con. box culverts, exten., County Trunk Rd. E. FSN-777, both Cass Co.; two 20x22 ft., concrete slab bridges, County Trunk Rd. A. FSN-643, Kossuth Co.; continuous I-beam bridge, US 151 and Iowa 64, FA-22-B(1), Linn Co.

Maryland—State Roads Comn., Baltimore, reconstructing 496 ft. bridge over Fishing Creek, Hooper Island, Contr. D 160-1-111, Dorchester Co.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., reconstructing expansion bearings on Bronx approach Macombs Dam Bridge, Bronx Boro.

BRIDGES, etc. (Bids Asked, Cont'd.)

Bids Asked December 19

Georgia—State Hy. Bd., W. E. Wilburn, chn., Atlanta, bridge, Liza Creek, Manchester-Shiloh Rd., Talbot Co.; 5 bridge and 1 box culverts, Thomasville-Quitman Rd., Thomas Co.; bridge over Central of Georgia R.R., Statesboro-Sylvania Rd., near Dover, Screven Co.; bridge, paved approaches, Yellow River, Covington-McDonough Rd., Porterdale, Newton Co.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, rein.-con. substructure, concrete approaches, steel truss bridge over Pecatonica River, S.B. 1, Rt. 75, Freeport, Sect. 109B-1, S.B. 1, Route 75; erecting structural steel for same bridge, Sect. 109E-1, St. Clair Co., etc. M. J. Fleming, Centennial Bldg., Springfield, asst. ch. hy. engr.

Bids Asked December 20

Kansas—State Hy. Dpt., Alma, Bridge 11.3, 91, 112, 91 ft., continuous D.P. girder, FA 392F, 35, 45 and 35 ft. continuous rein.-con. slab bridge FA 392F; Bridge 8.2, 40, 49 and 40 ft. continuous steel beam span, FA 392F; Bridge 6.5, 35, 45 and 35 ft. continuous rein.-con. slab, FA 392F; Bridge 11.1, 331 ft. continuous steel beam, FAGH 302F; Bridge 6.7, 192 ft. continuous rein.-con. slab, FAGH 392F, all in Wabaunsee Co. R. C. Keeling, Topeka, engr.

Bids Asked December 23

★**Wash., Seattle**—State Hy. Dpt., Olympia, 0.8 mi. viaduct, concrete deck, Spokane St. $1,000,000. Extended date. B. Bantz, Olympia, state hy. dir. CD 11/28—ENR 12/4.

Bids Asked December 29

New Jersey—E. Donald Sterner, comr. State Hy. Dpt., Trenton, 2 bridges, Route 28, Sects. 25 and 26, one over Station Rd. and other over North Branch Raritan River, North Branch, Somerset Co.; grade separation, 0.216 mi. Oak St., Sayreville, Routes 4 and 35, Sect. 11B, Middlesex Co.; adv. ENR 12/11.

Bids Asked About January 1 or 10

O., Youngstown—Mahoning Co., 80 ft. steel beam Shields Rd. span over Mill Creek, $37,500; 3 span 103 ft. bridge over Mill Creek, $32,698. R. J. Schoner, Youngstown, co. engr.

Bids Asked January 6

Kan., Kansas City—Chicago, Rock Island & Pacific R.R., W. H. Willis, asst. ch. oper. off., LaSalle St. Station, Chicago, Ill., Union Pacific R.R. Co., B. H. Prater, ch. engr., 1416 Dodge St., Omaha, Neb., and Kansas City Pub. Serv. Co., 728 Dela. St., Kansas City, Mo., reflooring 18 St. viaduct. $30,000. T. Schiup, city engr. CD 11/26—ENR 12/4.

LOW BIDDERS

Alabama—State Hy. Dpt., Montgomery, Nov. 28, bridge, Dale Co., from Goodwyn & Murphree, Troy. **$35,197.** CD 11/19.

California—C. H. Purcell, engr., State Hy. Dpt., P. Wks. Bldg., Sacramento, Dec. 3, rein.-con. flat slab bridge over Kings River, near Stratford, Kings Co., from Kiss Crane Service, 600 Arlington Ave., Berkeley. **$30,866.** CD 11/17—ENR 11/20.

Calif., San Diego—State Hy. Dpt., 808 State Bldg., Los Angeles, Dec. 4, Bridge, Washington St. at 10 Ave., from Contracting Engineers Co., 2310½ W. Vernon Ave., Los Angeles, **$151,225.** CD 11/17—ENR 11/20.

★**Connecticut**—W. J. Cox, comr. State Hy. Dpt., Hartford, Dec. 2. rigid steel frame bridge, 1,370 ft. approaches, Groton, from A. I. Savin Constr. Co., 10 Village St., East Hartford, **$326,811*****70 ft. span, railroad overpass, Maxim Rd., Hartford, from Charter Oak Constr. Co., Inc., 525 Main St., Hartford, **$31,375*****2 span, rein.-con. rigid frame bridge, approaches, Hartford, from D. V. Frione & Co., Inc., 87 Foxon Rd., New Haven, **$123,932** ***superstructures twelve 70 ft. rolled steel beam spans, Hartford, from Alexander Jarvis Co., Center St., Manchester, **$226,505*****substructures for same, from Mariani Constr. Co., 222 Forbes St., New Haven. **$192,875.** CD 11/25—ENR 11/27.

Iowa—State Hy. Comn., Ames, Dec. 2, bridge, Appanoose Co., from A. Olson Constr. Co., Waterloo, **$26,799.** CD 11/24—ENR 11/27.

Missouri—State Hy. Comn., Jefferson City, Nov. 28, bridge, Howard Co., from Cameron Joyce & Co., Keokuk, Ia. **$46,554.** CD 11/11—ENR 11/13.

New Jersey—State Hy. Dpt., Trenton, Dec. 5, approved structures at Newton Creek Bridge, Haddon Twp., and Big Timber Creek, Brooklawn Boro, both Camden Co., from Eisenberg Constr. Co., 411 Cooper St., Camden, **$57,797** and **$62,799** respectively. CD 11/18—ENR 11/27 under Roads.

CONTRACTS AWARDED

†**Calif., Oakland**—12th Naval Dist., Federal Office Bldg., San Francisco, overhead crossing over tracks Southern Pacific R. R. and Western Pacific R. R., on Adeline St., 1st St., Navy access road, Alameda Co., Spec. 10706, to Dinwiddie Constr. Co., Crocker Bldg., San Francisco, approx. **$200,000.** CD 10/8—ENR 10/16.

Missouri—State Hy. Comn., Jefferson City, bridge, Henry Co., to M. E. Gillioz Co., Inc., Monett, **$50,347.** Bids 11/21. CD 12/3 under LB—11/13 under BA.

Montana — State Hy. Comn., Helena, bridges, Sweetgrass and Wheatland Counties, to Union Constr. Co., 11 Ave. and 11 St, N., Great Falls, **$30,866**; bridges, concrete box culvert, Missoula Co., to Cahill-Mooney Constr. Co., 220 E. Front St., Butte, **$30,917.** Bids 11/25. CD 11/18.

Mont., Kalispell—Flathead Co., A. J. Shaw, clk., 856 ft. steel truss bridge over Flathead River. **WPA. $66,500.** CD 7/31—ENR 8/7.

STREETS AND ROADS

BIDS ASKED

Bids Asked December 15

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, permanent asphalt on concrete repaving **3 Ave.**

Bids Asked December 16

Indiana—State Hy. Comn., Indianapolis, S. C. Hadden, chrn., rein.-con. paving 2.494 mi. State Rd. 52, southeast of Clinton-Boone Counties Lines, 2.157 mi. State Rd. 52, southeast of Lebanon; 3.77 mi. State Rd., northwest of Lebanon, all foregoing Boone Co.; 5.987 mi. State Rd. 40, Hancock Co.; 5.364 mi. State Rd. 2, St. Joseph Co.; 4.578 mi. Marion Co.; 0.797 mi. State Rd. 20, 0.475 mi. State Rd. 27, Steuben Co.; 6.723 mi. State Rd. 30, Porter and Laporte Counties; concrete paving 5.195 mi. State Rd. 13, Kosciusko Co.; compacted aggregate paving, 8.008 mi. State Rd. 120, Lagrange Co.; 6.464 mi. State Rd. 120, Elkhart Co.; 3.224 mi. State Rd., Clinton and Carrol Counties; 3.154 mi. State Rd. 136, Putnam and Hendricks Counties; rock asphalt paving 0.62 mi., State Rds. 46 and 47, grading, structures 3.446 mi. State Rd. 64, Crawford Co.

Iowa—State Hy. Comn., Ames, paving, grading 0.24 mi. US 51 and Iowa 64, FA-22-B(1), Linn Co.; grading 1.016 mi. County Trunk Rd. E. FSN-791, Adair Co.; 5.985 mi. County Trunk E. FM-4; 2.982 mi. County Trunk Rd. E, FSN-777, both Cass Co.; crushed stone surfacing 4.3 mi. County Trunk Rd. T, FM-61; 4.55 mi. County Trunk Rd. L, FM-62 both Davis Co.

Maryland—State Roads Comn., Baltimore, concrete paving 0.652 mi. Contr. W 204-3-627, FAP ERH-1B, Washington Co.

★**Ohio**—State Hy. Dpt., Columbus, grading 6.126 mi. Sects. G, H and L of SH 206, Morrow Co., $37,100; roadside imprvs. 3.484 mi. Sect. D, Geauga Co. and Sect. Gates Mill Cuyahoga Co. of SH 15, U.S. 322, $21,700; 4.93 mi. Sects. B and C of SH 7, U.S. 52, Adams Co., $21,600; grading, drainage structures, traffic bound surface course 0.08 mi. Sect. E of SH 739, Ashtabula Co., $11,000; concrete widening, waterbound macadam and bituminous concrete resurfacing 1.971 mi. sections Mingo Junction, Steubenville and Q of SH 7, Jefferson Co., $45,200; grading, drainage structures, concrete paving, concrete slab bridge, widening concrete beam bridge, 6.091 mi. Sects. E and F of SH 434, U.S. 224, Van Wert Co., $263,700; grading, drainage structures, rein.-con. paving, concrete box culvert over Popular Creek, 9.092 mi. Sects. F and G of SH 61, Montgomery Co., $1,267,000; grading, drainage structures, concrete pavement, continuous steel girder bridge, with concrete deck, and substructure 1.973 mi. Sects. L-1, L-2 and Waverly of SH 5, U.S. 23, Pike Co., $299,300; grading, drainage structures, bituminous road mix on waterbound macadam paving 2.021 mi. Sect. F of SH 514, Portage Co., $64,800; grading, steel beam bridge, with creosoted timber deck and substructure 0.113 mi. Sect. B of SH 70, Tuscarawas Co. $11,450.

Bids Asked December 17

†**Ill., Proving Ground**—Con. Q.M., Savanna Ordnance Depot, Proving Ground, bituminous roads, incl. 73,000 sq. yd. dust laying seal coat, Savanna Ordnance Depot; adv. ENR 12/11.

Louisiana—State Dpt. Hys., Baton Rouge, concrete sidewalks, 0.586 mi. State Projects 31-01-08 and 193-01 -01, Routes 42 and 104, Cameron Parish.

Maine—State Hy. Comn., L. D. Barrows, ch. engr., Augusta, grading, 8.16 mi. Proj. SN 121 A(2), SN 377 A(2) Falmouth, Cumberland and Yarmouth. Over $40,000.

Md., Baltimore — Bd. Awards, City Hall, sheet asphalt paving Curtis Ave. from Benhill Ave. to Plum St., Contr. S.A. 754.

Bids Asked December 18

Florida—State Road Dpt., T. A. Johnson, chn., Tallahassee, clearing, grading, surfacing, concrete bridge, 2 mi. Rd. 270, Dade Co. Over $25,000.

Wyoming — State Ry. Comn., Cheyenne, grading, draining, base coarse surfacing, stone chip seal coat 6.158 mi. S.P. 2053, Big Horn Co.; treated timber sidewalk on bridge over Middle Fork of Powder River, S.P. 2103, U.S. 87, Johnson Co.

Bids Asked December 19

Georgia—State Hy. Bd., W. E. Wilburn, chn., Atlanta, grading 10.288 mi. Carrollton-Newnan Rd., Carroll Co.; concrete paving, road and underpass, 2.629 mi. Clairmont Ave. on Lawrenceville Rd. to Ponce de Leon Ave., Dekalb Co.; grading, surfacing treating, 1 bridge, 1 bridge culvert 7.111 mi. Claxton-Glennville Rd., Evans Co.; surface treating 9.852 mi. Tifton-Ocilla Rd., Irwin Co.; grading, surface treating 3.35 mi. Millen-Sylvania Rd., Screven Co.; grading, surface treating, 3 bridges, 1 bridge culvert 12.863 mi. Statesboro-Sylvania Rd., Screven Co.; grading 2.511 mi. State Route 22-Flint River Rd., Talbot Co., grading surface treating, 7.572 mi. Irwinton-Wrightsville Rd., Wilkinson Co.; surface treating, 1 bridge, 3.248 mi. Franks Creek, Barney-Hahira Rd., Lowndes Co.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, concrete paving 0.33 mi. Sect. 429, S.B. 1 Route 11, Dist. 8, St. Clair Co. M. J. Fleming, Centennial Bldg., Springfield, asst. ch. hy. engr.

New Jersey—E. D. Sterner, comr., State Hy. Dpt., Trenton, grading, rein.-con. paving 2.3 mi. Route 28, Sects. 25 B and 26 A, North Branch relocation, from Fidler's Elbow to Garretson Rd., Somerset Co.

Tex., College Station—A & M College, College Station, rein.-con. walks, curbs, gutters, drainage, etc. $70,000. A. C. Finn, Bankers Mortgage Bldg., Houston, engr.

Bids Asked December 20

†**Ariz., Mesa**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., imprv. streets, Mesa Airport. Over $25,000.

Kansas—State Hy. Dpt., Alma, grading 6.497 mi. FA 392 F; 4 mi. FA 392 F, both Wabaunsee Co. R. C. Keeling, Topeka, engr.

Bids Asked December 22

†**Md., Annapolis**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., roads, walks, drainage, electric lighting, ducts, at U. S. Naval Academy, Spec. 10674. CD 10/24—ENR 10/30.

Bids Asked December 26

California — C. H. Purcell, eng. State Hy. Dpt., Sacramento, grading, cement treated base, asphaltic concrete surfacing 1.3 mi. hy. between Bascom and Park Aves., Santa Clara Co.; grading, plantmix on concrete surfacing 0.3 mi. S. Chester Ave., 4.5 mi. south of Bakersfield, Kern Co.

Bids Asked December 29

New Jersey—E. Donald Sterner, comr., State Hy. Dpt., Trenton, grading, gravel paving 4.03 mi. Rte. 18, Sect. 1, Middlesex Co.; adv. ENR 12/11.

Bids Asked

†**Calif., Monterey** — U. S. Eng., Fort Ord, primary and secondary paving, Inv. Q.M. 6525-42-2.

Georgia—State Hy. Dpt., W. E. Wilburn, chn., Atlanta, rejected bids Sept. 19, imprv. 5.013 mi. Odum-Screven Rd., Wayne Co. CD 9/9—ENR 9/11.

LOW BIDDERS

California—State Hy. Dpt., 808 State Bldg., Los Angeles, Dec. 4, imprv. 2 mi. Los Angeles Co., from N. Perscallo, 938 N. Beaudry St., Los Angeles, **$225,745.** CD 11/17—ENR 11/20.

Calif., Los Angeles—City, Nov. 26, imprv. Zelzah and Vassar Ave. Imprvt. Dist., from T. E. Sherlock, 1103 W. 40 Pl. **$44,411.** CD 11/19—ENR 10/30.

†**Calif., Victorville**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Dec. 1, imprv. streets, Victorville Airport, from Geo. Herz & Co., Platt Bldg., San Bernardino, **$138,991.** CD 11/19—ENR 11/27.

Connecticut—W. J. Cox, comr. State Hy. Comm., Hartford, Dec. 2, imprv. 19,964 ft. hy., East Lyme and Waterford, from A. I. Savin Constr. Co., 10 Village St., East Hartford, **$466,214.** CD 11/25—ENR 11/27.

Iowa—State Hy. Dpt., Ames, Dec. 2, imprv. 8.914 mi. Wright Co., from G. H. Lowe, 509½ 3 Ave. SE., Cedar Rapids, **$31,716***** 5.304 mi. Jasper Co., from Burch Constr. Co., 3102 Mt. Vernon St. SE., Cedar Rapids, **$67,676*****7.743 mi. Appanoose Co. and 5.304 mi. Jasper Co., from Booth & Olson, Inc., 622 Ins. Exch Bldg., Sioux City, **$55,067** and **$155,839** respectively. CD 11/24—ENR 11/27.

Louisiana—State Dpt. Hys., Baton Rouge, Dec. 3, imprv. 12.738 mi. Washington Parish, from Deloney & Tatum, Dubach, **$35,229.** CD 11/2—ENR 11/20.

Minnesota—State Hy. Dpt., St. Paul, Nov. 28, imprv. 7.5 mi. S.P. 8711-02, SN-FAP 445 B(1), from F. Leguil, Adrian, and J. S. Pukrop, Ivanhoe, **$74,074**; 8.5 mi. S.P. 6920-03 and S.P. 6920 (2), from Whitmas & Borg, Bovey, **$204,404.** CD 11/12—ENR 11/20.

STREETS, etc. (Low Bidders, Cont'd.)

★**Missouri**—State Hy. Comn., Jefferson City, Nov. 28, from Koss Constr. Co., 205 Old Colony Bldg., Des Moines, Ia., and Geo. Bennett Constr. Co., 901 N. 3 St., Kansas City, Kan., imprv. 1.692 mi. Harrison Co., **$94,795** ***from Harrison Engineers & Constr. Co., 903 Fairfax Bldg., Kansas City, Mo., 3.774 mi. Greene Co., **$239,936;** 3.859 mi. Christian Co., **$177,246*****from Gillioz Co., Inc., Monett, 0.285 mi. Henry Co., **$27,630*****0.284 mi. Henry Co., **$37,955*****from Koss Constr. Co., 205 Old Colony Bldg., Des Moines, Ia., 3.39 mi. Nodaway Co., **$56,298;** 4.539 mi. Nodaway Co., **$64,824*****from O'Dell & Riney Constr. Co., Inc., 4 and Center Sts., Hannibal, 0.715 mi. Howard Co., **$37,014;** 3.196 mi. Pulaski Co., **$333,769;** 1.611 mi. Pulaski Co., **$98,116** ***from Cameron Joyce & Co., Keokuk, Ia., 0.568 mi. Howard Co., **$59,168.** CD 11/11 and 11/18—ENR 11/13.

New Hampshire—State Hy. Dpt., Concord, Dec. 4, imprv. road and 303 ft. rein.-con. type bridge 5.419 mi. hy. Bethlehem and Franconia, Grafton Co., from W. H. Hinman, Inc., North Anson, Me., **$415,761** est. $410,000***on road-work only, from Lane Constr. Corp., 35 Colony St., Meriden, Conn., **$322,045*****on bridge only, from O. W. Miller, Ludlow, Mass., **$5,206.** CD 11/21—ENR 11/27.

★**New Jersey**—State Hy. Dpt., Trenton, Dec. 5, imprv. 2.846 mi. Hunterdon Co., from Jannarone Constr. Co., 225 Passaic Ave., Belleville, **$485,590;** 0.836 mi. Essex Co., from N. J. Asphalt & Paving Co., foot of Howell St., Jersey City, **$69,919.** CD 11/18—ENR 11/27.

N. Y., Brooklyn—President Brooklyn Boro. Boro Hall, Dec. 1, imprv. Clarkson Ave., from B. Turecamo Contg. Co., Bay 8 St. and Cropsey Ave. **$34,986.** CD 11/21—ENR 11/27.

CONTRACTS AWARDED

Calif., Santa Cruz — Imprv. Soquel Ave., to L. Cardwell, Rt. 1, Box 80-C, **$27,557.** Bids 12/1. CD 11/25.

Conn., Ansonia—Mayor's Office, City Hall, bituminous macadam and rein.-con. paving. **WPA. $235,908.** V. B. Clarke, Main St., engr.

Florida—State Road Dpt., Tallahassee, imprv. 10.768 mi. Duval Co., to H. E. Wolfe Constr. Co., St. Augustine, **$428,061.** Bids 10/23. T. A. Johnson, chn. State Rd. Dpt. CD 10/16.

Ia., Waukon—Allamakee Co., Waukon, imprv. roads, **WPA. $146,565.** H. Orr, Waukon, co. engr.

Kansas—State Hy. Dpt., Great Bend, imprv. 8.413 mi. Barton Co., to Stamey Constr. Co., Hutchinson. **$66,799.** Bids 11/19, awarded 12/1. CD 11/6—ENR 11/13.

★**†Kentucky**—Tennessee Valley Auth., Knoxville, Tenn., relocating 5.3 mi. U.S. Hy. 68 and 1.3 mi. State Hy. 98, to Hart & Hart, Columbus, Ind., **$287,597** and **$192,761** respectively; 3.2 mi. State Hy. 94, to Porter-DeWitt Constr. Co., Wappapello, Mo., **$168,491.** Bids 10/28. CD 10/14—ENR 10/16.

Minnesota—State Hy. Dpt., St. Paul, imprv. 5 mi. S.P. 0710-06, to Jack and Judd Brown, Madison Lake and Lundin Bros., Mankato, **$163,601*****6.8 mi. S.P. 1410-3-02 and 6.9 mi. S.P. 1410-02, to W. Collins & Sons, Moorhead, **$47,593** and **$57,981** respectively*****8.7 mi. S.P. 6014-02, to H. P. Lund & Sons, Thief River Falls, **$91,844.** Grand total $361,-019. Bids 11/28. CD 11/12—ENR 11/20.

Minn., International Falls—F. E. Patterson, city clk., street, alley and sidewalk imprvs. **WPA. $170,536.**

Missouri—State Hy. Comn., Jefferson City, imprv. 0.715 mi. Howard Co., to Cameron Joyce & Co., Keokuk, Ia., **$37,518.** Bids 11/28, awarded 12/4. CD 11/18.

Mo., Moberly—T. J. Tydings, mayor, street imprvs. **WPA. $175,000.**

★**Montana**—State Hy. Comn., Helena, imprv. 9.454 mi. Wheatland and Sweetgrass Counties, to Nilson-Smith Constr. Co., 214 15 St. S., Great Falls, **$157,150*****4.865 mi. Big Horn Co. and 18.995 mi. McCone Co., to Albert Lalonde Co., Sidney, **$92,876** and **$124,989** respectively***1.858 mi. Cascade Co., to E. O. Howe, 1500 5 Ave. N., Great Falls, **$40,461*****3.212 mi. Missoula Co., to Union Constr. Co., 11 Ave. and 11 St. N., Great Falls, **$257,816** ***5.187 mi. Missoula Co., to L. A. Woodward Co., Missoula, **$93,598*****13.049 mi. Musselshell and Rosebud Counties, to Peter Kiewit Sons Co., 1024 Omaha Natl. Bank Bldg., Omaha, Neb., **$216,955*****7.281 mi. Yellowstone Co., to C. Shannon, 1601 Talbot Ave., Butte, **$29,377.** Grand total $1,013,222. Bids 11/25. CD 11/18.

New Hampshire—State Hy. Dpt., Concord, graveling 1.231 mi. Sullivan Co., to T. W. Watkins & Son, Inc., Amesbury, Mass. **$15,673.** Est. $55,000. Bids 11/20. Noted CD 11/10—ENR 11/13.

N. J., Fairview—Boro. grading, penetration macadam surfacing, concrete curbing, etc. Lincoln, McKinley, Probst and 8 Sts., Fulton and Shales Aves., **WPA. $80,349.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA and owner's engr.

N. J., Jersey City—Hudson Co., Court House, grading, resetting 75,000 ft. bluestone curbs, **WPA. $165,000.** F. Radigan, Court House, co. engr.

N. C., Franklin—J. O. Harrison, mayor, imprv. streets. **WPA. $56,571.**

†Okla., El Reno—U. S. Eng., Fort Sill, 4.5 mi. grading, draining, 7.5 mi. graveling post roads, Fort Reno, to Lewis Constr. Co., Muskogee. **$57,010.** Est. $60,000. Bids 11/26. CD 11/19.

★**Pennsylvania**—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, imprv. 32,427 ft. hy., incl. 4 rein.-con. structures, Lebanon and Berks Counties, to Fred Berlanti & Son, Inc., 15 Oakland Ave., Harrison, **$583,243.** Bids 11/7, awarded 12/3. CD 12/3—ENR 11/10—ENR 11/13 under LB.

Pa., Phila.—Fairmount Park Comrs., 21 St. and Parkway, reconstructing east lane of East River Dr., etc. **WPA. 75,000.**

Tex., Eastland—W. S. Adamson, judge Eastland Co., Precinct 4, imprv., reconstructing lateral roads, grading, structural and base. **WPA. $58,591.** A. F. Taylor, Eastland, engr.

Tex., Fort Worth—S. H. Bothwell, city mgr., access road from Jacksboro Hy. to University Dr. **WPA. $67,762.** W. O. Jones, Fort Worth, dir. P. Wks.

Quebec—Province of Quebec, Quebec City, grading, bituminous concrete paving 3,500 ft. Bois Franc Rd., St. Laurent, Jacques Cartier Co., to H. J. O'Connell, Ltd., 606 Cathcart St., Montreal. Est. **$25,000.** E. Gohier, Dpt. Roads, Quebec City, engr.

Que., Verdun—Asphalt and macadam paving 12 streets, day labor. **$65,750.** H. Hadley, City Hall, engr.

EARTHWORK WATERWAYS

PROPOSED WORK

†Kansas—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., 752 ft. rock filled dike, 195 ft. rock, willow fill structure in chutes of Missouri River at Squaw Bend, 2½ mi. from White Cloud. $26,000.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, constructing 670 ft. standard revetment in Missouri River, Civil Bend, 5 mi. upstream from Nebraska City. $16,000.

N. Y., St. George—Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, bulkhead bridge, incidental work, Marine Park, Richmond Boro. $320,000.

N. Y., St. George—Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, section riprap bulkhead, Faber Park. $15,000.

B. C., New Westminster—Dominion Govt., Ottawa, Ont., harbour facilities. $100,000.

B. C., Victoria—Dominion Govt., Ottawa, Ont., removal Ripple Rock from middle Seymour Narrows, in inside passage, half way up Vancouver Island. $350,000. Dpt. P. Wks., Ottawa, Ont., engr.

BIDS ASKED

Bids Asked December 18

N. Y., St. George—Comr. Docks, Pier A, foot Battery Pl., North River, New York, Contr. 2334, bulkhead wall, along bulkhead line and joining existing bulkhead walls, exten. sewers, foot of Canal St., Foreign Trade Zone 1, Stapleton, Richmond Boro.

Bids Asked December 22

New Jersey—State Bd. Commerce & Navigation, 1060 Broad St., Newark., Proj. 164, dredging Inland Waterway channel and anchorage basin, Manasquan River near Cook's Creek and Will's Hole Thorofare. $28,000. Bids 11/24 rejected. C. W. Stanford, 1060 Broad St., Newark, engr.; adv. ENR 12/11. CD 12/3—ENR 12/4 under LB.

Ont., Deceu Falls—H. E. Com. of Ontario, 620 University Ave., Toronto, channel imprvs., 12 Mile Creek, Grantham Twp.

Bids Asked December 26

†Me., Portland—U. S. Eng., Park Sq. Bldg., Boston, Mass., dredging 77,000 cu. yd. place measurement, in Portland Harbor. Inv. 175-42-74.

Bids Asked December 29

†Washington—Bureau Reclamation, Coulee Dam, structural glass, travertine, and granite work for Grand Coulee Dam and left power house, Columbia Basin Project, Spec. 1597-D.

Bids Asked January 5

†La., Melville—U. S. Eng., Masonic Temple, New Orleans, earth embankment for railroad crossing over levee and closing existing gap, together with auxiliary work, in Melville Ring Levee, West Protection Basin Protection Levee.

Bids Asked January 7

†Ky., Paducah—U. S. Eng., P. O. Box 59, Louisville, flood protection works, pump plants, McCracken Co.; adv. ENR 12/11.

LOW BIDDERS

★**†Washington**—Bureau Reclamation, Customhouse, Denver, Colo., Dec. 2, furnishing three 15x29.65 ft. penstock coaster gates for installation Grand Coulee Dam, Columbia Basin Project, Spec. 1010, from American Bridge Co., Frick Bldg., Pittsburgh, Pa., **$732,082.** CD 11/18.

†Wash., La Conner—U. S. Eng., Central Bldg., Seattle, Dec. 5, dredging Swinomish Slough, from Puget Sound Bridge & Dredging Co., 2929-16 Ave. S.W., Seattle, **$23,760.** Est. $17,577. CD 11/12—ENR 11/20.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., Gay Bldg., Little Rock, core drilling, White River watershed, Bull Shoals Dam Site, White River, to Pennsylvania Drilling Co., 1201 Chartiers Ave., Pittsburgh, Pa. **$24,825.** Bids 11/5. CD 10/21—ENR 10/23.

New Jersey—State Bd. Commerce & Navigation, 1060 Broad St., Newark, Proj. 173, stone jetty, with timber core wall, groins, Atlantic Ocean, Manasquan Boro, and Proj. 168, creosoted timber groins, creosoted timber bulkheads, etc., in Sandy Hook Bay, East Keansburg, Port Monmouth and Leonardo, Middletown Twp., all Monmouth Co., to J. A. Howland & Sons, 50 Church St., Seabright, **$82,146** and **$72,967** respectively*** Proj. 170, stone breakwater, etc., vicinity Neptune Ave., Deal Boro, Monmouth Co., to Thomas Proctor Co., 218 N. 5 Ave., Long Branch, **$108,375.** Grand total **$263,488.** Bids 12/1. CD 11/14—ENR 11/20.

†Pa., Plymouth—U. S. Eng., 332 Post Office Bldg., Baltimore, Md., constructing Coal Creek Diversion, Luzerne Co., to Stewart O. Standberg Co., 37 W. Vanburn St., Chicago, Ill. **$123,913.** Bids 11/12. CD 10/10—ENR 10/16.

S. D., Brandon—Minnehaha Co., Sioux Falls, constructing Split Rock Lake Project, incl. flood control, dam, recreational facilities, water conservation construction. **WPA. $231,706.** CD 7/7—ENR 7/10.

†Tex., Freeport—U. S. Eng., Federal Bldg., Galveston, log dam, intersection Canal and Brazos River, to Tellepsen Constr. Co., 3900 Clay Ave., Houston, **$42,469.** Bids 12/1. CD 11/18.

★**†Tex., Freeport**—U. S. Eng., Federal Bldg., Galveston, flood gates, bldgs., site of Intercoastal Waterway and Brazos River, 4 mi. southwest of here, to Tellepsen Constr. Co., 3900 Clay Ave., Houston, **$1,303,886.** Bids 11/25. CD 12/2—ENR 12/4.

†Virginia-North Carolina—U. S. Eng., Norfolk, Va., dredging 1,650,000 cu. yd. Inland Waterway between Norfolk, Va., and Beaufort Inlet, N. C., to Gahagan Constr. Corp., 147 Remsen St., Brooklyn, N. Y., **$168,960.** Bids 11/20, awarded 11/29. CD 11/5—ENR 11/13.

Que., La Tuque—St. Maurice Power Corp., 107 Craig St. W., Montreal, 2 water storage dams, Lake Siconsine and Lake Mondoac, on St. Maurice River, to J. J. Crete, Grandes Piles, Est. **$300,000.** Shawinigan Eng. Co. Ltd., 107 Craig St. W., Montreal, engrs.

UNCLASSIFIED

PROPOSED WORK

Ariz., Prescott—AIRPORT—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., indefinitely postponed bids to have been opened Dec. 9, clearing, grading, draining, paving, etc., Prescott Airport. CAA. CD 11/26.

Calif., Burbank—HANGAR—Lockheed Aircraft Corp., 1505 Victory Pl., wood final assembly hangar, Empire Ave. between Lincoln and Buena Vista Sts. Approx. $200,000. Parkinson & Parkinson, 434 Title Insurance Bldg., Los Angeles, archts.

Calif., Long Beach — TAXIWAYS, etc. — U. S. Eng., 751 S. Figueroa St., Los Angeles, indefinitely postponed taking bids taxiways, etc., Long Beach A.C. Ferrying Command, grading, etc. Over $25,000. CAA. CD 11/25—ENR 11/27.

Calif., Palm Springs—AIRPORT GRADING, etc.—U. S. Eng., 751 South Figueroa St., Los Angeles, indefinitely postponed bids to have been opened Dec. 14, clearing, grading, paving, etc., Palm Springs Airport. CAA. CD 11/25—ENR 11/27.

★**Calif., San Pedro**—SHIPBUILDING YARD —Western Pipe & Steel Co., 3717 S. Santa Fe Ave., Vernon, shipbuilding yard, buildings, having 2,000 ft. frontage, west basin, Los Angeles Harbor. $3,500,000.

★**†Florida** — SEAPLANE BASE — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., expansion and new

UNCLASSIFIED (Proposed Work, Cont'd.)

construction, Seaplane Base, at Banana River near Cocoa, to provide facilities for heavy Naval Patrol planes, $5,000,000.

★**Kentucky and Tennessee**—TRANSMISSION LINE—Louisville Transmission Corp., 311 W. Chestnut St., Louisville, Ky., 60 mi. double circuit high voltage transmission line from Louisville, Ky., toward Nashville, Tenn. $3,850,000. L. G. & E. Co., Eng. Dpt., 311 W. Chestnut St., Louisville, Ky., engr.

†**Mass., East Boston (Sta. Boston)**—SHIPBUILDING PLANT—General Ship & Engine Wks., 336 Border St., 1 story, steel, brick steel plate and general storage bldg., concrete fdn., for Maritime Comn. $210,000. Defense Plant Corp. will finance.

Mass., Hamilton — ATHLETIC FIELD — Town Bd. Selectmen, Town Hall, athletic field, baseball, tennis, running track, skating and playground facilities, stands, etc. $25,000.

Mass., Springfield — ATHLETIC FIELD — City, Park Dpt., R. C. Chapin, chn. Bd., Municipal Bldg., enclosed athletic field, baseball and football facilities, 2 grandstands, Blunt Park? $35,000.

Minn., Brainerd — BROADCASTING STATION — Brainerd-Bemidji Broadcasting Co., Brainerd, broadcasting station. Over $25,000.

★†**New York**—POWER TRANSMISSION LINE—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., high tension power transmission line from New York City to Messena.

N. Y., Flushing—TRAFFIC DIVIDER—Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, traffic divider, Grand Central and Interborough Parkways. $256,000.

★**N. Y., Jamaica**—YARD FACILITIES—Bd. Transportation, 250 Hudson St., New York, additional yard facilities, 207 St. $800,000.

★**N. Y., New York**—CONCOURSE YARD FACILITIES—Bd. Transportation, 250 Hudson St., additional facilities to Concourse Yard. $532,400.

N. Y., North Beach—AIRPORT—Dpt. Docks, Pier A, North River, New York, emergency electric plant, $25,000; vehicular tunnel to sea plane administration bldg., $300,000, both at Municipal Airport 2, LaGuardia Field.

N. Y., North Beach—AIRPORT SERVICE BUILDING—Dpt. Docks, Pier A, North River, New York, service bldg. for Municipal Airport 2, La Guardia Field. $110,000.

N. Y., North Beach—LOADING PLATFORM—Dpt. Docks, Pier A, North River, New York, loading platform with connecting bridge to administration bldg., Municipal Airport 2, La Guardia Field. $250,000.

Okla., Chickasha—GATHERING LINES, etc.—Oklahoma Natural Gas Co., 401 N. Harvey St., Oklahoma City, gathering lines, natural gas booster pump station, Chickasha gas field of Grady Co. $150,000.

Okla., Locust Grove—RAILROAD SPUR—Kansas, Oklahoma & Gulf Ry. Co., J. M. Kahley, ch. engr. Midland Valley R. R. Co., Muskogee, 5 mi. railroad spur and bridge over Grand River, near here. $250,000.

Pennsylvania—TUNNEL—Pennsylvania R. R., C. I. Leiper, ch. engr. (central region) Penna. Sta. Pittsburgh, tunnel under tracks Pittsburgh, Bessemer & Lake Erie R. R. Co., near North Bessemer, Allegheny Co., to accomodate exten. Plum Creek branch line to connect with Unity Railways Co. $244,400.

Pa., Pen Argyl—STREET LIGHTING SYSTEM—Metropolitan Edison Co., 412 Washington St., Reading, street lighting sys. $25,000-$35,000.

Tex., Brownsville—TANK FARM—Pan-American Airways, Brownsville, steel tank farm to store 100,000 gal. gasoline. $40,000 or more.

Tex., Midland—AIRPORT—U. S. Eng., Federal Bldg., Galveston, bids soon, municipal airport. $349,000. City voted $60,000 bonds. CAA. CD 11/24—ENR 11/27.

Utah — POWER LINES, etc. — Garkane Power Assn., Inc., R. A. Middleton, mgr., Hatch, surveys, etc., constructing, acquiring 205 mi. lines, constructing generating plant. $213,000 REA allot. W. W. Flora, 1618 Flora St., Cheyenne, Wyo., engr.

Utah, Logan—AIRPORT—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., indefinitely postponed bids to have been opened Dec. 8, airport. CAA. Over $25,000. CD 11/21—ENR 11/27.

★**Wis., Green Bay**—AIRPORT—Brown Co., O. Rothe, clk., made preliminary plans airport, County Trunk Hy. V, town of Preble, near here. $1,963,000. Will seek WPA funds. A. A. Porath, Green Bay, co. engr.

†**Wis., Superior**—SHIPYARD—Globe Shipbuilding Co., Superior, bldgs. and equip. for production naval vessels, for Maritime Comn. $175,000. Defense Plant Corp. will finance.

†**Alaska, Whittier**—PIER—U. S. Eng., Central Bldg., Seattle, cancelled bids to have been opened about Dec. 1, terminal pier on eastern terminus Passage Canal connection of Alaska R. R. New bids to be called on revised specifications, government furnishing treated piling and lumber, Inv. 869-42-131. CD 10/6—ENR 10/9.

Alta., Calgary—GRAND STAND—Calgary Exhibition Ltd., c/o H. C. Yule, Exhibition Park, grand stand, 4,000 seating capacity. $30,000.

Alta., Wainwright—CAMP, etc.—Dominion Govt., Ottawa, Ont., plans by Dpt. National Defense, Ottawa, Ont., military camp, training center, ground development, water, sewers, at former buffalo park. $200,000. Dpt., Munition & Supply, Ottawa, Ont., engr.

B. C., Esquimalt—SHIPYARD—Yarrows Ltd., Esquimalt, N. A. Yarrows, pres., shipyard and building addn. $100,000.

B. C., Vancouver—PLAYGROUND, etc.—Municipality, playground and park, sloping side site north of 6 Ave., between Ste. Catherine and Scott Sts. $30,000. C. Brakenridge, City Hall, engr.

B. C., Vancouver—SHIPYARD—Burrard Drydock Co. Ltd., C. Wallace, pres., North Vancouver, exten. shipyard and building, North Vancouver. $75,000.

B. C., Vancouver — WHARF — Columbia Yacht Basin Ltd., 510 W. Hastings St. wharf, $25,000.

Man., Dauphin—HANGAR—Dominion Govt., Ottawa, Ont., plans by National Defense for Air, Ottawa, Ont., hangar and other bldgs. $150,000.

Newfoundland, St. Johns—ARENA—Syndicate, c/o City Clerk, City Hall, arena. $75,000.

Newfoundland, St. John's—ROUNDHOUSE—Government of Newfoundland, St. John's, locomotive round house and freight yard imprvs. $60,000.

N. S., Halifax—OIL STORAGE TANKS—Imperial Oil Ltd., 56 Church St., Toronto. 58x130 ft. oil storage tanks. $35,000.

Ont., Chatham—GAS WELLS—Dominion Natural Gas Co. Ltd., gas wells, cribs, etc., Lake Erie, Romney Twp. $50,000.

Ont., Hamilton — TRACK REPLACEMENT —Hamilton Street Ry., 18 Wentworth St. N., track replacement, Barton St. $25,000.

Ont., Owen Sound—BOAT PLANT—Russel Bros. Ltd., Owen Sound, bids soon 80x165 ft., tile, steel, boat building plant. $75,000-$100,000.

Ont., Sarnia—MARINE RAILWAY SLIP—Mac-Craft Ltd., Sarnia, marine railway slip, River St. Clair. $50,000.

Que., Newington—INTERMENT CAMP—Dominion Govt., Ottawa, Ont., interment camp, ground development, hutments, etc. $200,000. Dpt. National Defense, Ottawa, Ont., engrs.

Que., Quebec City—ELEVATOR—J. Gosselin, c/o F. X. Chouinard, city clk., elevator from top of Crown St. at St. Vallier to St. Real Sts. $40,000.

Que., Verdun—PLAYGROUND IMPROVEMENTS, etc. — Imprv. playgrounds, parks. $30,000. H. Hadley, City Hall, engr.

Sask., Maple Creek—ARMY TRAINING DEPOT—Secy. Dpt. Munitions & Supply, Ottawa, Ont., bids soon army training depot, about 35 buildings, hospital, etc. living quarters for men, officers, mess halls, etc., for Dpt. National Defense, Ottawa, Ont. About $400,000.

BIDS ASKED

Bids Asked December 15

†**Mass., Chicopee Falls**—AIR BASE IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., 9 units ordnance facilities, incl. warehouse, shops, sheds, magazines, igloos, Army Air Base, Westover Field. $200,000. CD 9/17—ENR 9/25 under Public Bldgs.

Bids Asked December 16

B. C., Vancouver—WHARF—National Harbour Bd., engrs., Ottawa, Ont., reconstructing Dunlevy Ave. wharf, Vancouver Harbor. $40,000.

Bids Asked December 18

†**N. Y., Fort Slocum**—DOCKS—U. S. Eng., Fort Slocum, reconstructing docks.

Bids Asked About December 19

Tex., Greenville—AIRPORT IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, airport imprvs. CD 11/18—ENR 11/27.

Bids Asked December 19

†**N. J., Cape May**—RADIO STATION, etc.—4th Naval Dist., Navy Yard, Phila., Pa., repairing, altering radio station for additional housing facilities and garage space, also gravel road, Cape May Naval Air Station.

Bids Asked On or About December 29

†**Tex., Lubbock** — AIRPORT — U. S. Eng. Caddoa, Colo., airport, incl. A. C. type engineering shop bldg., A. C. oil storage bldg. CD 11/26—ENR 12/4.

Bids Asked December 30

†**S. C., Charleston**—NAVY LANDING, etc.—Pub. Wks. Officer, Navy Yard, Charleston, Navy Fleet Landing and Landing Floats, Spec. 10662. Extended date. CD 11/21—ENR 11/27.

Bids Asked About January 1

Tex., Georgetown—AIRPORT—U. S. Eng., Federal Bldg., Galveston, airport, grading, clearing, heading strips, etc. $434,000. CAA. CD 9/30—ENR 10/12.

Bids Asked

†**Kan., Kansas City**—RUNWAY, etc.—U. S. Eng., Davidson Bldg., Kansas City, Mo., additional runway, taxi strips, etc., Fairfax Airport.

★†**Md., Annapolis** — BOAT BASIN and SHIPYARD—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., boat basin and marine railway, 800 ft. creosoted timber pier, 2 landing stages, 1,700 ft. concrete seawall, Naval Acadamy. $360,000. CD 11/18—ENR 11/27.

†**Mass., South Boston (Sta. Boston)**—DRY-DOCK CAISSON—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., dry dock caisson, Spec. 10767. Date not set. CD 12/1—ENR 12/4.

N. J., Lyndhurst—RADIO TRANSMITTER STATION—WINS Broadcasting Station, 28 W. 44 St., New York, N. Y., radio transmitter station, Valley Brook Rd. $250,000, incl. equip.

LOW BIDDERS

†**California, Arizona** and **Nevada** — OIL STORAGE SYSTEMS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Dec. 3, oil storage sys., Victorville, Calif., Las Vegas, Nev., Phoenix and Mesa, Ariz., Inv. 127, from Fritz Ziebarth. Security Bldg., Long Beach, Calif., **$74,500.** CD 11/28.

Calif., Bishop—AIRPORT GRADING—U. S. Eng., 751 S. Figueroa St., Los Angeles, Dec. 3, grading, asphaltic and concrete paving, Bishop Airport, from Isbell Constr. Co., 1300 E. 4 St., Reno, Nev., **$242,387.** CAA. CD 11/28.

Conn., New London—PARK—City Purchasing Agent, Municipal Bldg., Dec. 2, recreational facilities, etc., Ocean Beach Park, Proj. 408-G, from John D. McWilliams & Co., 16 Water St., Norwich. **$52,422.** CD 11/28.

★†**Mass., South Boston (Sta. Boston)**—DOCK —Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Dec. 3, concrete graving dock, inside cellular steel sheet pile cofferdam, etc., Spec. 10717, from United Constr. Co., 52-1-2 E. 3 St., Winona, Minn. **$2,924,664.** CD 11/18—ENR 11/27.

†**Nev., Las Vegas**—LANDING FIELDS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Nov. 28, auxiliary landing fields, 7 landing strips, etc., from Werner & Webb, 1116 N. Mansfield Ave., Los Angeles, Calif., **$53,242.** CD 11/19.

†**N. Y., Brooklyn**—PIER, etc.—Pub. Wks. Officer, 3rd Naval Dist., 90 Church St., New York, Dec. 2, reconstructing pier and sheds, New York Harbor-Fort Hamilton, Fort Lafayette, from Arnold M. Diamond, 134 Borum Pl., **$77,174.** CD 11/11—ENR 11/13.

†**Wash., Everett** — AIFPORT IMPROVEMENTS— U. S. Eng., Central Bldg., Seattle, Dec. 3, paing parking apron and 2 taxi strips, draining, Paine Field, from Northwest Constr. Co., 3950 6 Ave. N.W., Seattle, **$228,755.** Est. $205,300. CD 11/3—ENR 11/6.

†**Wash., Longview** — SUBSTATION SWITCHGEAR— Bonneville Power Admin., P. O. Box 3537, Portland, Ore., Dec. 2, furnishing metal-clad switchgear for substation, Inv. 2399, from General Electric Co., 1 River Rd. Schenectady, N. Y., **$98,491.** CD 11/14—ENR 11/20.

CONTRACTS AWARDED

Calif., Los Angeles—SWIMMING POOL, etc.—Town House, 639 S. Commonwealth Ave., 25x30 ft., rein.-con. swimming pool, 1 and part 2 story, sports bldg., etc., 639 S. Commonwealth Ave., to Paddock Eng. Co., 1014 N. La Brea Ave., approx. **$35,000.** W. D. McAllister, 2417 Beverly Blvd., archt.

Calif., Redwood City—HANGAR—L. Cox, 499 Chiftern Rd., Hillsborough, hangar building to J. C. Whittaker, 306 Lexington Way, Burlingame, **$45,567.**

†**Md., Annapolis**—SEEDING, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D.C., seeding, grading,

UNCLASSIFIED (Contracts awarded, Cont'd.)

additional fill, Naval Academy, 10672, to A. & M. Contg. Co., Arnold, **$74,719.** CD 10/24—ENR 10/30.

★**†Miss., Greenville**—AIRPORT IMPROVEMENTS—U. S. Eng., 1 and Douglas Sts. N. W., Wash., D. C., 62 miscellaneous cantonment type bldgs., grading runways, airfield area, draining field, paving runways, taxiways, parking areas, sodding or surfacing airfield, etc., Southeast Air Corps Training Center, to M. T. Reed Constr. Co., Belzoni, **$2,181,225.** Additional to CD 7/3—ENR 7/10 under CA.

†Nev., Hawthorne—ALARM SYSTEM, etc—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., telephone entire alarm sys. and auxiliary generator set, Naval Ammunition Depot, 10152, to Severine Electric Co., 234 9 St., San Francisco, **$194,900.**

Pa., Gaines—PRESSURE PLANTS—Bradley Producing Co., Wellsville, pressure plants to force recovery crude from wells, Gaines Field, also connecting pipelines, equip., separate contracts. **$40,000** to **$50,000.** CD 12/2—ENR 12/4.

Pa., Phila. — PLAYGROUND IMPROVEMENTS—Dpt. P. Wks., City Hall Annex, extensive playground imprvs., new swimming pool, etc., **WPA. $421,000.**

Pa., Wolf's Church (P. O. York) — PIPELINES, etc.—Sinclair Oil Co., 630 5 Ave., New York, N. Y., pipelines, storage tank farm, terminal, etc. 20 acre site, Spring Grove-Hanover Hy., separate contracts. **$35,000.** CD 12/2—ENR 12/4.

★**†R. I., Melville (Mail Portsmouth)**—NAVAL FUEL DEPOT TANKS, etc. — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N. W., Wash., D. C., underground storage tanks, heating plant, water, electric, sewerage sys., additional facilities, naval fuel depot, to Leonard Constr. Co., Inc., 420 Lexington Ave., New York, N. Y., **$4,250,000,** cost-plus-fixed-fee.

Tex., Olney—GAS PIPE MAIN—Lone Star Gas Co., 1915 Wood St., Dallas, 28½ mi. 12 in. gas pipe main into Sewell Field area. Owner builds. Approx. **$66,000.**

Tex., Pottsville—GAS MAIN—Lone Star Gas Co., 1915 Wood St., Dallas, 22 mi. 6 in. gas main into Pottsville gas area. Owner builds. Approx. **$44,500.**

Wash., Seattle—TAXIWAY—U. S. Eng., Central Bldg., grading, paving, lighting 50x5,150 ft. taxiway, Boeing Field, to Northwest Constr. Co., 3950 6 Ave. N.W., **$60,381.** CAA.

Alta., Pearce—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome development, surfacing runways and taxi strips, to British American Oil Co. Ltd., 324 Preston St., Ottawa, Ont. About **$35,338.**

Man., Hartney—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome development, Relief 1 to Souris, clearing, grading, hard-surfacing runways, etc., to Carter-Halls-Aldinger Co. Ltd., Royal Bank Bldg., Winnipeg. About **$240,000.**

★**N. S., Yarmouth** — AERODROME — Dpt. Transport, Ottawa, Ont., aerodrome development, clearing, grading, etc., to Tomlinson Constr. Co., Ltd., 21 King St. E., Toronto, Ont. About **$530,000.**

Ont., Toronto — SHIPBUILDING — Dominion Govt., Ottawa, building for use of Toronto Shipbuilding Co., foot of Spadina Ave., day labor. **$25,000.** H. Horner, 19 Bloor St. W., archt.

P. E. I., Charlottetown — AIRPORT — Dpt. Transport, Ottawa, Ont., airport development, incl. clearing, grading, etc., to Stormes Contg. Co. Ltd., 49 Givens St., Toronto, Ont. Est. **$165,000.**

Que., Beauport—SKI SLIDE, etc.—Winter Sports Assoc., c/o E. Renaud, 2 Chauveau St., Quebec City, **ski slide, etc., Lac Beauport, day** labor. **$30,000.** Former contract rescinded. CD 11/12—ENR 11/20 under CA, giving Owner c/o G. H. Morency Road Club, as owner.

★**Que., Mont Joli**—AIRPORT—Dpt. Transport, Ottawa, Ont., airport work, clearing, grading, grubbing, drainage, concrete protection work, taxi strips, taxiways, etc., British Commonwealth Air Training Plant, to Cartier Constr. Ltd., 1010 St. Catherines St. W., Montreal, about **$684,900.**

Sask., Halbrite—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome development, Relief 1 to Weyburn, Man., clearing, grading, etc., to Bird Constr. Co. Ltd., 708 Confederation Life Bldg., Winnipeg, Man. About **$215,000.** Bids 9/18. CD 9/15.

LATIN AMERICA

Mexico—National Railways, Bolivar and 5 de Mayo, Mexico, D.F., plans 1,226 mi. line Mexico City, Mexico to El Paso, Tex., 803 mi. line from Mexico City, Mexico, to Laredo, **Tex., 384** mi. line from Mexico City to Guadalajara and 188 mi. line from Puerto Mexico-Salina Cruz (crossing Isthmus of Tehauntepec, etc., $21,050,000***Municipal Government, Palacio Municipal, Mexico, D.F., bids asked January 10, 5 markets. **Mexico City,** $4,750,000***Mexican Government, Scrita, Communicaciones y Obras Publicas, Mexico, D.F., plans trunk road and branches to connect northern and southern Gulf of Mexico coasts, pushing southern section Pan American Hy., the central highway, Chihuahua, Zacatecas, Durango, Guanajuato, Queretaro, Mexico states, road from Sonora state to Guadalajara and Mexico City, and road to link northern and southern districts of Baja California, $31,500,000 (tentative).

Mexico, Baja California—Republic of Mexico, Mexico City plans housing scheme for agricultural colony of 100,000 workers. Initial cost $1,000,000.

South America, Brazil—Ministry of Industry, Labor & Commerce, c/o acting minister Dr. Dulphe P. Machado, Rio de Janeiro, plans oil refinery, **Candeias,** state of **Bahia** $250,000 ***Government of Brazil, Rio de Janeiro, plans plant for manufacture airplane motors, in **Rio de Janeiro,** $1,20,000.

South America, Brazil, Rio de Janeiro — Municipality plans hotel, at Tiguca Hills near the Cascatinha. $2,000,000.

South America, Columbia, Bogota—Republic of Columbia, c/o Ministry Pub. Wks., J. Gomez Pinzon, in charge, monies voted to complete construction Edificio Nacional de Pasta $250,000; and Penitenciaria Central de La Picota, $1,000,000. Ministry of Pub. Wks., Bogota, engr.

South America, Columbia, Colegio—Republic of Columbia, J. Gomez Pinzow, minister in charge, Bogota, monies voted to complete construction Hospital Nacional de San Bartolome $300,000, Hospital de Puerto Berrio $180,000. Dpt. P. Wks., Bogota, engrs.

PUBLIC BUILDINGS

PROPOSED WORK

†Ala., Childersburg — Town, health subcenter to be operated by County Health Dpt., Docket Ala. 1-181. $20,000. **DPW.**

†Ala., Florence—Lauderdale Co. and City of Florence, 3 story, bsmnt. hospital to replace Elizabeth Coffee Hospital, Docket Ala. 1-142. $175,000. **DPW.** CD 4/2—ENR 4/17.

†Ala., Mobile—Bd. School Comrs. Mobile Co., school, south of Brookley Field. Docket Ala. 1-154. $52,666. **DPW.**

†Ark., Little Rock—City, health center, Docket Ark. 3-116. $103,226. **DPW.**

★**†Calif., San Diego**—San Diego Unified School Dist., plans by W. Lodge, 509 5th Ave. Bldg., Kit Carson School, $482,000; plans by E. Giberson, 426 B St., Naval Training Station School, $336,000; plans by S. W. Hamil, Bank of America Bldg., Destroyer Base School, $300,000; plans by Kistner & Curtis, 665 Spreckles Theatre Bldg., for Stephen W. Kearney Jr. and Sr. High School, Kearney Mesa building project, $361,188; plans by W. Templeton Johnson, 1437 San Diego Trust & Savings Bank Bldg., Linda Vista School, for south section Mesa building project, $350,000. **DPW.** CD 9/8—ENR 9/11.

Calif., Stockton—Stockton Unified School Dist. plans by J. Losekann, 331 E. Market St., 50x200 ft. wood frame, stucco defense training shop addn., 3 units classroom addns. to Academic Bldg. $150,000.

Colo., Leadville—Lake Co., J. Gregory, clk., plans by W. N. Bowman, Insurance Bldg., Denver, court house. $200,000.

†Conn., East Hartford—Farm Security Admin., Upper Darby, Pa., 80 frame demountable frame dwelling units, near United Aircraft Co. plants. $150,000.

†Conn., Fairfield—Town, J. Ferguson, First Selectman, Town Hall, 2 story, bsmnt., brick, steel Roger Low High School addn. $124,380. **DPW.** O. C. S. Ziroli, 1330 Post Rd., archt. CD 2/10—ENR 2/13.

★**†Conn., Groton**—Coast Guard Div., Navy Dpt., Liberty Loan Bldg., 14 St. and Mine Ave. S.W., Wash., D. C., brick, steel training station, Avery Point. $1,936,000. Chandler & Palmer, 16 Franklin St., Norwich, engrs. CD 11/25—ENR 11/27.

D. C., Wash.—Dist. Comrs., District Bldg., school, Nichols Ave. and Atlantic St. S.E.

★**†Fla., Jacksonville**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., new barracks for 1,000 additional enlisted men, $600,000; additional ammunition storage facilities, $216,000.

†Fla., Key West—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., commissary bldg., Naval Air Station. $50,000.

†Fla., Lakeland—Lakeland Housing Auth., R. E. Bates, executive dir., bids soon 60 dwelling units for USHA. $250,000.

†Fla., Little River—Bd. Pub. Instruction for Dade Co., acting for Special Tax School Dist. 2, Little River School addn., Docket Fla. 8-157. $72,400. **DPW.**

†Fla., Opa Locka—Bd. Pub. Instruction for Dade Co., acting for Special Tax School Dist. 3, Opa Locka School addn., Docket Fla. 8-128. $65,000. **DPW.**

†Ill., Alton—Alton Memorial Hospital assn., c/o E. Rodgers, member Bd. Directors, c/o Alton Brick Co., Alton, bids soon hospital addn., Docket Ill. 11-192. $135,000. DPW. La Beaume & Klein, 315 N. 7 St., St. Louis, Mo., archts. CD 12/3.

★**†Ill., Belleville**—Yards & Docks, Navy Dpt., 18 St. and Const'tution Ave. N.W., Wash., D. C., steel foundry, machine shop, testing laboratories, near here. Operated by Walworth Co., under direct management Westcott Valve Co., 2133 Bond Ave., East St. Louis. $3,000,000. CD 11/17—ENR 11/20, under East St. Louis.

†Ill., Chicago—United Drill & Tool Corp., 411 W. Ontario St., plant for production ordnance equip. $324,000 for land and construction. Defense Plant Corp. will finance.

Ill., East St. Louis—East Side Health Dist., c/o Dr. R. C. Farrier, Health Dist. Dir., 325 East Broadway, brick, concrete, stone, etc. health distr. bldg. $200,000. Will apply for DPW funds.

†Ind., Merrillville (Mail Crown Point)—Ross School Twp. of Lake Co., Merrillville School addn., Docket Ind. 12-136. $145,150. **DPW.**

Ia., Waverly—R. Clark, city clk., imprv. municipal light and power plant. $90,000.

†Ky., Fort Knox—War Dpt., acting by and through Lt. Col. C. D. Holmes, M. C., Fort Knox Independent Post School addn., Docket Ky. 15-124. $259,145. **DPW.**

La., Baton Rouge—State Dpt. Health, Baton Rouge, central laboratory for Dpt. Health, on Dpt. Hys. grounds east of Peabody Hall. $348,000.

†La., Pollock—Grant Parish School Bd., Pollock School addn., Docket La. 16-143. $27,000. **DPW.**

†Me., Portland—Maine General Hospital, alterations, imprvs., addns. Maine General Hospital, Docket Me. 17-131. $224,875. **DPW.**

†Md., Elkton—Union Hospital of Cecil Co., Hospital, Docket Md. 18-105. $240,000. **DPW.**

†Md., Indian Head—Physicians Memorial Hospital, Inc., hospital addn., Docket Md. 18-132. $35,000. **DPW.**

Mich., Marquette—Northern State Teachers College, Marquette, plans by Warren S. Holmes Co., Lansing, 2 story, bsmnt., brick, steel, stone, concrete dormitory. $150,000.

†Mich., North Muskegon—Public Schools of North Muskegon, plans by Warren S. Hoomes Co., 2200 Olds Tower Bldg., Lansing, 2 story, bsmnt., brick, steel, concrete, stone school, Docket Mich. 20-134. $78,750. **DPW.** CD 11/7—ENR 11/13.

Mich., Ypsilanti—Michigan State Normal College, Ypsilanti, plans by R. S. Gerganoff, 206 Washington St., 2 story, bsmnt., steel, dormitory. $350,000.

★**†Mo., St. Louis**—Scullin Steel Co., H. Scullin, pres., 6700 Manchester Ave., steel plant addn. $500,000 plus, approx. $2,000,000 for machinery and equip. Defense Plant Corp. will finance.

N. J., Audubon—School Dist. plans by Perring & Remington, archts. and engrs., 509 Cooper St., Camden, school. $150,000.

★**N. J., Paterson**—Paterson Housing Auth., City Hall, bids soon twenty-five 2 and 3 story brick, frame apartment bldgs., Blvd. 5. $1,500,000. H. A. Kelly and B. S. Gruzen, 921 Bergen Ave., Jersey City, archt. CD 10/1—ENR 10/9.

★**N. Y., Brooklyn**—Dpt. Educ., 110 Livingston St., East New York Vocational High School, Conduit Blvd. and Wells St. $2,020,000.

★**N. Y., Brooklyn**—Dpt. P. Wks., Municipal Bldg., New York, tuberculosis and chronic disease hospital, Kings County Hospital. $3,800,020.

†N. Y., Elmira—City, school addn., Docket N. Y. 30-139. $83,125. **DPW.**

★**N. Y., Jamaica**—Dpt. P. Wks., Municipal Bldg., New York, altering, constructing to out-patient department addns. and altering admitting div., Queens General Hospital. $711,300.

N. Y., Maspeth—Bd. Educ., 49 Flatbush Ave., Brooklyn, P. S. 128, vicinity of Juniper Valley Rd. and 70 St. $375,000.

★**N. Y., New York**—Dpt. P. Wks., Municipal Bldg., altering, reconstructing southeast wing and main stem, Harlem Hospital. $556,014.; reconstructing, imprv. Metropolitan Hospital. $191,000.

★**N. Y., New York**—Bd. Educ., 49 Flatbush Ave. Exten., Brooklyn, West Side Voca-

PUBLIC BLDGS. (Proposed Work, Cont'd.)

tional High School, vicinity 137 St. and Bway. $2,380,000.

★**N. Y., New York**—Dpt. P. Wks., Municipal Bldg., Harlem Welfare Center, W. 136 St. near 5 Ave. $600,000.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., University Heights Branch library, Bronx Boro. $175,000.

★**N. Y., New York**—Dpt. P. Wks., Municipal Bldg., Unit 2, Fulton Fish Market $520,000; and Avenue C market $350,000.

N. Y., Rochester—Div. Purchase & Supply, City Hall, 62x150 ft. repair shop. $45,000.

N. Y., St. George—Dpt. P. Wks., Municipal Bldg., New York, Richmond Health Center and Office bldg. $337,900.

†**N. Y., Watertown**—Bd. Trustees Mercy Hospital, Mercy Hospital addn., Docket N. Y. 30-112, $400,000. **DPW.** CD 3/4—ENR 3/6 under Commercial Bldgs.

†**Okla., Lawton**—City, fire station bldg., etc., Docket Okla. 34-134. $46,000. **DPW.**

†**Okla., Lawton**—City Bd. Educ., school, Docket Okla. 34-113. $25,200. **DPW.**

†**Ore., Pendleton**—Umatilla Co., health center, Docket Ore. 35-132. $30,620. **DPW.**

Pa., Beaver—Bd. Educ., G. A. McCormick, supt. Schools, sketches by W. G. Eckles Co., 719 Lawrence Savings & Trust Bldg., New Castle, 2 story, bsmnt., brick on hollow tile Fort McIntosh School addn., Beaver St. $175,000.

★†**Pa., Harrisburg**—Veterans Admin., F. T. Hines, administrator, Vermont Ave. between H and I Sts., Wash., D. C., veterans, hospital, within 20 mi. here. $2,000,000. Site not selected.

Pa., Lock Haven—Bd. Educ., J. F. Puderbaugh, supt., plans by T. H. Hamberger, Lock Haven, 1 story, bsmnt., brick, steel, concrete (foyer and 2 wings) vocational school. Over $150,000 incl. equip. CD 9/17—ENR 9/25.

†**Pa., Millersburg**—W. L. Brubaker & Bros. Co., Millersburg, 1 story plant for manufacture machine tool equip. Defense Plant Corp. will finance.

★†**Pa., Pittsburgh**—Blaw-Knox Co., Union Steel Castings Div., D. V. Sherlock, vice pres., Farmers Bank Bldg., sketches by Hunting, Davis & Dunnells, 1150 Century Bldg., 1 story, 200x200 ft., steel frame factory bldg., 50 ft. high, 62 and Butler Sts. $350,000 for bldg., $1,080,000 equip., etc. Defense Plant Corp. will finance. CD 11/4.

†**Pa., Titusville**—School Dist. of Titusville Junior-Senior High School addn., Docket Pa. 36-117. $70,500. **DPW.**

†**R. I., Quonset Point**—Construction Officer, Naval Air Base, rejected bids Dec. 2, 4 pump service station, brick, Naval Air Base, Spec. 10657. CD 12/5.

†**Tenn., Milan**—Mayor and Bd. Aldermen, plans by John Howard & Emmons H. Woolwine, Amer. Trust Bldg., Nashville, school, Docket Tenn. 40-110. $72,000. **DPW.**

Tenn., Union City — Union City Housing Auth., plans by Marr & Holman, Stahlman Bldg., Nashville, housing. $400,000.

Tex., Austin—State Bd. Control, Austin, plans by C. H. Page & Son, Enfield Gracy Bldg., repairing, imprv., State Capitol Bldg. $443,771 appropriated, W. E. Simpson Co., 1445 Milan Bldg., San Antonio, engrs. CD 7/18—ENR 7/24.

†**Tex., Beaumont**—City, c/o R. Edmonds, mayor, hospital, Docket Tex. 41-244. $350,000. **DPW.** Stone & Pitts, 1200 Goodhue St., archts. CD 12/3.

†**Tex., Channelview**—Dist. Trustees, Channelview Independent School Dist., school addn., Docket Tex. 41-321. $70,500. **DPW.** CD 10/1—ENR 10/9.

†**Tex., Duncan Field**—U. S. Eng., c/o Major T. Osborne, Moon Bldg., San Antonio, permanent bldg. for 4 engine test stands. $300,000 appropriated.

Tex., Edinburg—Town, A. A. Aldrich, mayor, bond election Dec. 19, purchasing, imprv. electric light and power plant and distr. sys. $300,000. CD 11/26—ENR 12/4.

†**Tex., Galveston**—Con. Q.M., Fort Crockett, rejected bids Oct. 2, 1 story subsistence warehouse. CD 9/26.

★†**Tex., Houston** — War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., Dickson Gun Plant, vicinity of here. Government owned, agent operated. $7,500,000.

†**Tex., Orange**—City c/o A. Sokolski, mayor, fire station, Tex. 41-374. $55,200. **DPW.** Steinman & Goldman, Box 3267, Beaumont, archts. CD 12/3.

Tex., Terrell—Terrell State Hospital, tubercular bldg. $150,000. Funds authorized. S. W. Bliss, Nixon Bldg., Corpus Christi, archt. CD 9/15—ENR 9/18.

Utah, Ogden—Weber Co. plans by S. A. Shreeve, Keisel Bldg., infirmary addn. $150,000. Applied to DPW for gr.

Va., Norfolk—Norfolk Housing Auth., 500 Dickson Bldg., will advertise about Jan. 2, bids for 230 unit low rent defense housing, Roberts Park. CD 5/19—ENR 5/22.

★**Wash., Bremerton**—Bremerton Housing Auth., 1,000 housing units. $4,000,000. Seeking federal funds.

†**Wash., Chico**—Chico School Dist. 23, Kitsap Co., school addn., Docket Wash. 45-167. $9,000. **DPW.**

★†**Wash., Poulsbo**—Poulsbo Housing Auth., Poulsbo, 225 dwellings, Front St. west of Hill St., for USHA. CD 9/10—ENR 9/18.

†**Wash., Seattle** — Bethlehem Steel Co., Youngstown Pl., steel plant. Defense Plant Corp. will finance.

★†**Wash., Tacoma**—J. E. Sirrine & Co., archts., Box 960, Greenville, S. C., aluminum plant, for Olin Corp., Alton, Ill., for War Dpt., $6,000,000. Defense Plant Corp. will finance. CD 10/30—ENR 11/6.

†**Alaska, Ketchikan**—City, school, Docket Alaska 50-102. $125,085. **DPW.** CD 9/26—ENR 10/2.

†**Alaska, Sitka**—Town, high school, Docket Alaska. 50-101. $123,000. **DPW.**

★†**Puerto Rico, San Juan**—Farm Security Admin., The Mall 12 to 14 Sts. S.W., Wash., D. C., R. G. Tugwell, San Juan, in charge, housing or rehousing, slum district area. $4,000,000.

Alta., Calgary—Dominion govt., Ottawa, Ont., plans by E. F. Browne, 104 Ardern Bldg., military hospital, $150,000. Dpt. Nat. Defense, Ottawa, Ont., engr.

Alta., Medicine Hat—Municipality, power plant addn., using steam turbo generator. $40,000.

B. C., Victoria—Dominion Govt., Ottawa, Ont., plans by Dpt. Naval Affairs, Ottawa, Ont., Naval College. $350,000 (initial cost). Dpt. P. Wks., Ottawa, Ont., engrs.

Ont., Brockville—Dominion Govt., Ottawa, Ont., machine repair shop. $40,000. Dpt. Munitions & Supply, Ottawa, engrs.

Ont., Hamilton—Dominion Govt., Ottawa, plans by Dpt. National Defense, Ottawa, Army Trades Schools exten., ordnance workshop and repair shop. $150,000. Dpt. Munitions & Supply, Ottawa, engrs.

Ont., Ottawa—Secy. Dpt. P. Wks. bids soon temporary office bldg., Central Experimental Farm, Carling Ave., for Dpt. P. Wks. $300,000. C. D. Sutherland, c/o owner, archt.

Ont., Ottawa—Secy. Dpt. P. Wks., Ottawa, bids soon temporary Pensions and National Health bldg., Mackenzie Ave. About $200,000. C. D. Sutherland, c/o owner, archt.

Que., Bordeaux (Postal Dist. Montreal)—Province of Quebes, Quebec City, building for criminal insane. $350,000. Dpt. P. Wks., Quebec City, engrs.

Que., Chicoutimi—Province of Quebec, Quebec City, hospital addn. $150,000.

Que., Gentilly — Syndicate, c/o Bureau of Industry, Dpt. Agriculture, Parliament Bldgs., Quebec City, flax factory. $40,000.

Que., Montreal North (P. O. Dist. Montreal) — Syndicate, c/o Bureau of Industry, Dpt. Agriculture, Parliament Bldg., Quebec City, flax factory. $40,000.

Que., Quebec West—Dominion Govt., Ottawa, Ont., plans by Dpt. P. Wks., Ottawa, Ont., 3 story, bsmnt., 40x152 ft., brick hospital wing, concrete fdn., Immirgation Hospital, Savard Park. $150,000.

Que., St. Hyacinthe—G. R. Richer, archt., 242 Girouard Blvd., bids early in 1942, normal school for Rev. Sisters of St. Joseph, St. Hyacinthe. CD 3/20—ENR 4/3.

Sask., Dundurn—Dominion Govt., Ottawa, Ont., plans by Dpt. National Defense, Ottawa, Ont., ordnance workshop bldg., machine shop, etc. $60,000. Dpt. Munitions & Supply, Ottawa, Ont., engrs.

BIDS ASKED

Bids Asked After December 6

†**Tex., Arlington**—Pub. Bldgs. Admin., 7 and Dts. S. W., Wash., D. C., dormitory bldgs. for 100 single aircraft workers. CD 5/9—ENR 5/15.

Bids Asked December 15

†**Conn., Bridgeport** — City, Bd. Educ., 804 Main St., brick, steel Edison School addn., Harvey St. and Boston Terrace, Docket Conn. 6-108, $100,000; Toby Vece, 1241 Main St., archt., CD 10/30—ENR 11/6; 2 story, bsmnt., brick Broadbridge School, Huntington Rd., Docket Conn. 6-109, $100,000, J. Gerald Phelan, 1336 Fairfield Ave., archt. CD 12/4. **DPW.**

†**Mass., Watertown**—Con. Q.M., Army Base, Boston, 3 story, bsmnt., 90x93 ft., brick, steel laboratory, Watertown Arsenal. $250,000. J. R. Worcester & Co., 79 Milk St., Boston, engrs. Adv. ENR 12/11.

Bids Asked December 16

†**Ill., Scott Field**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., garage, flagpole, etc. Defense Housing Project.

†**Mass., Camp Edwards**—U. S. Eng., Camp Edwards two 63 man barracks, mess hall, storehouse, company administration unit, recreation bldg. CD 12/4.

†**Mich., Walled Lake**—Walled Lake Consolidated School Dist. 1, 2 story, bsmnt., brick, steel, stone, rein.-con. school, Docket Mich. 20-136. $80,000. **DPW.** Warren S. Holmes Co., 2200 Olds Tower Bldg., Lansing, architects. CD 11/3—ENR 11/6.

Pa., Chester—Chester Housing Auth., 5 and Welsh Sts., 350 unit housing, Project Pa. 7-1 USHA. Extended date. CD 11/24—ENR 11/27.

†**Pa., Phila.**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., two 1 story bldgs. and 2 story, frame barracks, Navy Yard, No. 10650.

Bids Asked December 17

†**Conn., Stratford**—Town, W. H. Shea, mgr., Town Hall, brick, steel addn. Franklin School, Docket Conn. 6-135. $55,437 **DPW.** Charles W. Walker, 1115 Main St., Bridgeport, archt. CD 11/27—ENR 12/4.

†**Miss., West Point**—Farm Security Admin., Donaghey Bldg., Little Rock, Ark., farmstead unit bldgs.

†**R. I., Newport**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Corpsmen's barracks, Naval Operating Base, Spec. 10758. CD 12/1—ENR 12/4.

Bids Asked December 18

†**Colo., Fort Logan**—Englewood School Dist. 75, c/o L. D. Sandres, secy., 3240 South Federal Blvd., Denver, 1 story, brick school, Docket Colo. 5-102. $62,000 **DPW.** V. Hornbien, Boston Bldg., Denver, archt. CD 11/24—ENR 11/27.

†**Conn., Groton**—Boro, S. B. Butler, supt. Schools, 1 and 2 story, brick, steel, limestone addn. Eastern Point School, Docket Conn. 6-112. **DPW.** E. L. Scholfield, 309 State St., New London, archt. CD 10/2—ENR 10/9.

†**La., Camp Claiborne**—Con. Q.M., Camp Claiborne, constructing, completing troop housing facilities for Medical Sanitary Company and 1 Q.M. Truck Company, incl. necessary utilities, roads, sidewalks, grading, etc., adv. ENR 12/11.

†**La., Columbia**—Farm Security Admin., Donaghey Bldg., Little Rock, Ark., farmstead unit bldgs.

†**Md., Fort George G. Meade**—Con. Q.M., Fort George G. Meade, 52 miscellaneous bldgs.; adv. ENR 12/11.

Bids Asked December 19

Calif., Wilmington—Los Angeles Dpt. Water & Power, 207 S. Bway., Los Angeles, steam surface condenser unit, Harbor Steam Plant. Over $25,000.

Bids Asked December 22

†**Ariz., Phoenix**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., 4 temporary bldgs., incinerator, Luke Field.

Bids Asked December 23

Ark., North Little Rock—North Little Rock Housing Auth., 92 unit housing, Project Ark. 2-2. USHA. Extended date. CD 11/24—ENR 11/27, under BA.

★**Calif., Los Angeles** — Los Angeles City Housing Auth., 1031 S. Bway., 260 unit housing, Project Cal. 4-2. $1,309,000. USHA. CD 11/6—ENR 11/19

★**Calif., Los Angeles**—Los Angeles City Housing Auth., 1031 S. Bway., 800 family unit Aliso Village housing, E. Mission Rd. between Aliso and 1 Sts. $3,481,000. USHA. Extended date. Housing Group Architects, 611 Architects Bldg., archts. CD 11/12—ENR 11/20.

†**N. Y., Iona Island**—Pub. Wks. Officer, 3rd Naval Dist., 90 Church St., New York, service extens. to new bldgs., heating, electrical and water distr. sys.

†**Tex., San Angelo**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., management and maintenance bldg., maintenance garage, etc., Defense Housing Project, Air Corps Basic Training School.

†**Va., Arlington**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., management and maintenance bldg., maintenance garage, etc., Defense Housing Project, Arlington Cantonment.

†**Va., Quantico**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., exten. F.B.I. barracks, magazines, transmitter bldg., etc. CD 11/18—ENR 11/27.

P. R., Ponce—Municipal Housing Auth. of Ponce, P. R., 200 housing units, Project PR 1-7. USHA. Extended date. CD 11/17—ENR 11/20.

Bids Asked December 29

†**Arizona-California-Nevada**—Bureau Reclamation, Customhouse, Denver, Colo., 23,000 volt bus structure, generator-neutral reactor

PUBLIC BLDGS. (Bids Asked, Cont'd.)

and oil circuit breakers, and generator voltage oil circuit breakers for Units N-7 and N-8 Boulder Power Plant, Boulder Canyon Project, Spec. 1017. Extended date. CD 11/24—ENR 11/27.

Bids Asked December 29

D. C., Wash.—Alley Dwelling Auth., 1300 E St. N.W., Wash., D. C., 280 housing units, Project DC 1-3. USHA. Extended date. CD 11/17—ENR 11/20.

†**N. J., Atlantic City**—Atlantic City Housing Auth., 156 unit housing, Project NJ 14-2. USHA. CD 6/16—ENR 6/19.

N. C., Asheville—Asheville Housing Auth., 82 unit housing, Project NC 7-1 and 90 unit housing, Project NC 7-2. USHA. Extended date. CD 12/1—ENR 12/4, under BA.

P. R., San Juan—Puerto Rico Housing Auth., San Juan, P. R., 200 housing units, Project PR 2-3. USHA. Extended date. CD 12/1—ENR 12/4.

Bids Asked December 30

†**Ky., Louisville**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., relocating morgue and additional laundry facilities.

N. J., Burlington—Burlington Housing Auth., City Hall, general contract, steel, iron, etc. 90 dwelling units. $300,000. USHA. L. S. Kaplan, 33 W. State St., Trenton, archt. CD 11/14—ENR 11/27.

Pa., Uniontown—Fayette County Housing Auth., H. Mulligan, exec. dir., Union Trust Bldg., 40 unit housing, Project Pa. 15-2, USHA. Extended date. CD 11/19—ENR 11/27, under BA.

P. R., Mayaguez—Municipal Housing Auth. of Mayaguez, 337 housing units, Project PR 4-2. USHA. Extended date. CD 11/17—ENR 11/20.

Bids Asked December 31

Ark., Conway—Conway Housing Auth., 30 unit housing, Project Ark. 6-1, and 20 unit housing, Project Ark. 6-2. USHA. Extended date. CD 11/12—ENR 11/20 under BA.

Bids Asked January 2

★**Ill., Chicago**—Chicago Housing Auth., 834 unit housing, Project Ill. 2-2S. USHA. Extended date. CD 11/12—ENR 11/20.

Ky., Somerset—Somerset Municipal Housing Comn., 34 unit housing, Project Ky. 8-1. USHA. Extended date. CD 12/1—ENR 12/4 under BA.

Ill., Jacksonville—Morgan County Housing Auth., Jacksonville, 70 unit housing, Project Ill. 21-1. USHA. CD 11/12—ENR 11/20.

Ill., Ottawa—La Salle Co. Housing Auth., 50 unit housing, Project Ill. 14. 110-unit housing, Project Ill. 14-2, and 50 unit housing, Project Ill. 41-4. USHA. CD 9/25—ENR 10/2.

Ill., Urbana—Champaign County Housing Auth., 70 unit housing, Project Ill. 6-1 and 70 unit housing, Project Ill. 6-2. USHA. Extended date. CD 11/12—ENR 11/20.

†**Mo., Lebanon**—Public Bldgs. Admin., Post Office Bldg., Kansas City, Mo., health center bldg., Docket 23-120, for State Bd. Health, Jefferson City. $22,500. **DPW.** J. M. Schaper, Central Trust Bldg., Jefferson City, archt. H. W. Olmstead, Post Office Bldg., Kansas City, Mo., project engr. CD 9/23—ENR 9/25.

†**Mo., Waynesville**—Pub. Bldgs. Admin., Post Office Bldg., Kansas City, Mo., health center and clinic bldg. Docket Mo. 23-121. $22,500. **DPW.** J. M. Schaper, Central Trust Bldg., Jefferson City, archt. H. W. Oldstead, Post Office Bldg., Kansas City, Mo., project engr. CD 10/28—ENR 10/30.

Bids Asked January 5

★**Mass., Boston**—Boston Housing Auth., J. Breen, chn., 18 Oliver St., 446 unit housing, Project Mass. 2-6. $2,500,000. USHA. CD 1/31—ENR 2/6.

N. J., Long Branch—Housing Auth., City Hall, 82 unit housing, Project N. J. 8-2. USHA. CD 10/24—ENR 10/30.

★**Pa., Bethlehem**—Bethlehem Housing Auth., H. P. Pfeifle, chn. 250 unit housing, Project Pa. 11-1. USHA. CD 6/23—ENR 6/26.

★**Tenn., Memphis**—Memphis Housing Auth., 369 unit housing, Project Tenn. 1-4-A. $1,350,000. USHA. CD 9/25—ENR 1/2.

†**Washington**—Bureau Reclamation, Customhouse, Denver, Colo., furnishing, installing 3 alternating-current generators for Grand Coulee power plant, Columbia Basin Project, Spec. 1018; adv. ENR 12/11.

Bids Asked January 6

★**Ark., Fort Smith**—Fort Smith Housing Auth., 176 unit housing, Project Ark. 3-1. $622,000. USHA. CD 11/26/40—ENR 11/28/40.

Pa., Pittsburgh—Pittsburgh Housing Auth., Dr. B. J. Hovde, administrator, Terrace Village, (revised plans) general contract, plumbing, heating, 282 unit Allegheny Dwellings Housing, Project Pa. 1-5. $1,000,000. USHA. Extended date Marks, Simboll & Fisher, 702 Grogan Bldg., archts. J. F. Straight, 7209 Witherspoon St., landscape archt. CD 12/8—ENR 11/13 under BA.

Pa., Uniontown—Fayette County Housing Auth., H. Mulligan, exec. dir., Union Trust Bldg., 150 unit housing, Project Pa. 15-3. USHA. Extended date. CD 11/19—ENR 11/27 under BA.

Tex., Galveston—Galveston Housing Auth., City Hall, Oleander Homes for white tenants, incl. administration and 31 dwelling bldgs., Tex. 17-1. Extended date. USHA. B. Milam, Trust Bldg., F. T. Stafford, 1921 Post Office St., and R. K. Rapp, Guaranty Bldg., assoc. archts. J. W. Beretta Engineers, Inc., Natl. Bank of Commerce Bldg., engrs. CD 12/8—ENR 11/27.

Bids Asked January 7

Calif., Bakersfield—Kern County Housing Auth., 3801 N. Chester Ave., 60 unit housing, Project Cal. 8-1, USHA. Extended date. CD 11/12—ENR 11/20 under BA.

Idaho, Kimberly—Kimberly Housing Auth., Kimberly 30 unit housing project Ida-3-1. USHA.

Bids Asked January 8

Ala., Jasper—Jasper Housing Auth., 40 unit housing, Project Ala-12-1. USHA. CD 9/25—ENR 10/2.

Bids Asked January 9

Calif., Martinez—Contra Costa County Housing Auth., c/o County Clerk, Martinez, 56 unit housing, Project Cal-11-1 and 36 unit housing, Project Cal. 11-3. Extended date. USHA. CD 11/12—ENR 11/20 under BA.

★**Calif., San Francisco**—Housing Auth., City and County of San Francisco, 525 Market St., 232 unit housing, Project Cal. 1-11R. $1,270,000. USHA. CD 12/18—ENR 12/26.

P. R., Ponce—Municipal Housing Auth., Ponce, P. R., 280 housing units, Project PR. 1-2. USHA. Extended date. CD 11/11—ENR 11/13.

Bids Asked January 10

★**R. I., Woonsocket**—Woonsocket Housing Auth., W. M. Gauvreau, chn., 455 Carrington Ave., 300 unit housing, Project RI-3-1. $1,100,000. USHA. CD 9/3—ENR 9/11.

Bids Asked January 12

†**Colorado**—Bureau Reclamation, Customhouse, Denver, main and station service control equip. for Green Mountain power plant, Colorado-Big Thompson Project, Spec. 1601-D.

†**Mich., Detroit**—U. S. Coast Guard 9th Naval Dist., B. F. Keith Bldg., Cleveland, O., main station bldg. and commanding officers residence, with accessories, Lake Charles Lifeboat Station, Belle Island.

N. Y., Tuckahoe—Tuckahoe Housing Auth., Village Hall, 58 unit housing, Project NY-8-1. USHA. CD 10/14—ENR 10/16.

Bids Asked January 13

Ga., Waycross—Waycross Housing Auth., 48 unit housing, Project Ga-28-1 and 48 unit housing, Project Ga-28-2. USHA. CD 11/17—ENR 11/20.

Bids Asked January 15

Colo., Denver—Denver City and County Housing Auth., City-County Bldg., 76 unit housing, Project Colo. -1-4. USHA. Extended date. CD 11/12—ENR 11/20 under BA.

Ga., Cedartown—Cedartown Housing Auth., 54 unit housing. Project Ga 25-1. USHA. Extended date. Cooper & Cooper, Forsythe Bldg., Atlanta, archt. CD 11/11—ENR 11/13.

Tex., Del Rio—Del Rio Housing Auth., V. D. Curry, chn., 126 unit housing, Project Tex-16-1. USHA. CD 10/2—ENR 10/9.

Bids Asked January 16

O., Hamilton—Hamilton Housing Auth., Hamilton, 141 unit housing, Project Ohio-15-1. USHA. CD 6/16—ENR 6/19.

Bids Asked

†**Calif., Fort Ord** — U. S. Eng., Fort Ord, recreation bldg., company storehouse, mess hall, 2 barracks bldgs., Inv. Q.M.-6665-42-19.

LOW BIDDERS

★**Ala., Dothan**—Dotham Housing Auth., Dec. 3, housing Projects 7-1 and 7-2, from A. Blair, 1st Natl. Bank Bldg., Montgomery. **$616,000.** USHA. M. G. Smith, 301 Washington Ave., Montgomery, and J. D. Sweeney, Dothan, archts. Noted CD 11/17—ENR 11/20.

†**Conn., Windsor Locks**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., Dec. 2, maintenance unit shops, magazines, icehouse, etc., Army Air Base, from Miller-Davis Co., 1 William St., Wallingford. **$82,750.** CD 11/25—ENR 11/27.

Ga., Albany—Albany Housing Auth., Dec. 1, 48 unit housing, Project Ga. 23-1 and 54 unit housing, Project Ga. 23-2, from R. J. Edgerly, Albany. **$283,723.** USHA. CD 11/24—ENR 2/13.

Ind., Fort Wayne — Fort Wayne Housing Auth., J. Essig, exec. secy., 1825 Morris St., Dec. 2, 96 dwelling units, Westfield Village Housing addn., Ind. 3-1A, from Max Irmscher & Sons, 1113 Old First Bank Bldg. **$287,000.** USHA. CD 11/21—ENR 11/27.

Kan., Lawrence—State Bd. Regents, State House, Topeka, Dec. 2, general contract mineral resources bldg., University of Kansas, from M. J. Green, Manhattan, **$343,000***** plumbing, heating, from Woodhull Plumbing Co., McPherson, **$34,460*****wiring, from Overton Electric Co., Inc., 522 Jackson St., Topeka, **$29,673.** CD 11/19—ENR 11/27.

†**N. H., Portsmouth**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Nov. 28, machine shop exten., Portsmouth Navy Yard, Spec. 10698, from Tocci Bros., Inc., 38 Colonial Ave., Newtonville, Mass. **$175,564.** CD 11/18.

†**R. I., Quonset Point**—Construction Officer, Naval Air Base, Quonset Point, Dec. 2, oil storage tank, Spec. 10732, from Mauro Constr. Co., Inc., 601 Turks Head Bldg., Providence. **$30,610.** CD 11/25—ENR 11/27.

Wis., Manitowoc—Manitowoc Co., Nov. 28, general contract 3 story, steel, brick asylum, heating plant, laundry, from M. Schumacher, 438 Baker Bldg., Minneapolis, Minn., **$342,840** ***heating, ventilating, from John F. Ahern Co., Fond du Lac, **$63,000*****plumbing, drainage, from A. H. Dummer, Manitowoc, **$39,900.** CD 11/18—ENR 9/25.

CONTRACTS AWARDED

†**Calif., San Diego**—Headquarters 11th Naval Dist., foot of Bway., sick officers quarters, out patient clinic, 2 ward bldgs., exten. Subsistence Bldg. 4, Naval Hospital, to I. C. Curry & F. C. Young, 1801 B St., **$449,000.** Bids 12/2. CD 11/13—ENR 11/20.

★†**Calif., San Francisco**—Pub. Wks. Officer, Mare Island Navy Yard, Mare Island, miscellaneous bldgs., Naval Dry Dock, Hunters Point, NOY 5125, to Barrett & Hilp, 918 Harrison St. **$550,000.**

†**Conn., Hartford**—Farm Security Admin., Upper Darby, Pa., eighty-six 1 story, frame dwelling units, South Meadow, to Allied Housing Associates, Inc., 5 Bellvue Ave., Langhorne, Pa. Est. **$150,000.**

†**Fla., Key West**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., additional facilities, Section Base and Naval Operating Base, NOY 5129, to The Mackle Co. and Leach Constr. Co., 2818 Coral Way, Miami. **$345,000.**

†**Ga., Savannah**—U. S. Eng., P. O. Bldg., motor repair shop, oil storage house, storehouse, Savannah Air Base, to Henry A. Ivey, Decatur. **$49,806.**

Ill., Princeton—Turbo generator, for municipal light and power plant imprvs., to General Electric Co., 1 River Rd., Schenectady, N. Y. **$45,650.** CD 9/10—ENR 9/18.

†**Md., Fort George G. Meade**—U. S. Eng., Fort George G. Meade, 37 miscellaneous bldgs., to Tuller Constr. Co., 95 Monmouth St., Red Bank, N. J. **$448,240.**

★†**N. Y., Brooklyn**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., additional facilities, Navy Yard, Supplemental Agreement No. 1, Contr. NOY 4743, to White Eng. Corp., 30 Broad St., New York. **$2,950,000.** Additional to CD 4/28—ENR 5/1, under CA.

†**N. Y., Brooklyn**—Con. Q.M., 200x210 ft. laundry, Brooklyn Army Base, 2 Ave. and 58 St., Purchase and Hire. Est. **$120,000.**

†**O., Elyria**—Romec Pump Co., P. Ryan, pres., 333 E. Bridge St., 1 and 2 story, 175x365 ft. brick, steel factory and office, to Paugh & Brown, Inc., 6007 Euclid Ave., Cleveland. Est. **$100,000.** Defense Plant Corp. will finance. CD 9/4—ENR 9/11.

†**Pa., Phila.**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., foundation superstructure Turbine Testing Laboratory, Navy Yard, No. 10649, to Charles F. Vachris, Inc., 827 Remsen Ave., Brooklyn, N. Y. **$189,800.** Bids 11/19. CD 11/18.

★†**Pa., Williamsport**—Aviation Mfg. Corp. (Lycoming Div.), Williamsport, 1 story, 380x425 ft. plant for manufacture aircraft engines, to Sordoni Constr. Co., Forty Fort. **$630,000.** Defense Plant Corp. will finance. CD 10/23—ENR 10/30.

Ont., Barriefield—Dominion Govt., Ottawa, barracks, other essential bldgs., services for Canadian Women's Army Corps, to W. C. Brennan Contg. Co., Ltd., 400 N. Gage St., Hamilton. Est. **$150,000.** CD 11/14—ENR 11/20.

Ont., Nobel—Wartime Housing Ltd., 55 York St., Toronto, 200 dwell.ngs, to L. C. Scott Constr. Ltd., 330 Bay St., Toronto. Est. **$350,000.**

PUBLIC BLDGS. (Contracts Awarded, Cont'd.)

Que., Tadoussac—Power plant, to **A. Bedard**, 132 St. Patrick St., Quebec City. **$70,000.** Z. Langlais, 105 Mount Hill, Quebec City, engr.

Ont., Windsor—Secy. Dpt. Munitions & Supply, Ottwa, 1 story, bsmnt., 170x310 ft., steel, brick, factory addn., for Canadian Motor Lamp Co., 2429 Seminole St., to Piggott Constr. Co., Piggott Bldg., Hamilton. **$150,000.** Ewart Armer & Byam, 36 Toronto St., Toronto, engrs. Bids 11/18, awarded 12/2. CD 11/17.

Que., Quebec City—Province of Quebec, Quebec City, 4 story, 50x70 ft., rein.-con., brick garage repair shop, de Varennes St., rein.-con. fdn., to E. Jinchereau, 325 de la Salle St. Est. **$75,000.** Former contract rescinded. CD 8/14—ENR 8/21 under CA.

★**Que., Shawinigan Falls**—Dpt. Munitions & Supply, Ottawa, Ont., plant, Rang St. Mathieu, near here, for Shawinigan Chemicals, Ltd., Shawinigan Falls, to Fraser-Brace Eng. Co., Ltd., 360 St. James St. W., Montreal. About **$1,500,000.** CD 12/2—ENR 12/4.

COMMERCIAL BUILDINGS

PROPOSED WORK

Conn., Hartford—Shore Realty Co., c/o S. L. Heidrich, archt., 11 E. 36 St., New York, N. Y., sketches 47 dwelling unit brick, steel apartment, Marshall St. $150,000.

Ill., Rockford — Rockford Hospital, 507 Chestnut St., 5 story hospital addn. and 25 room nurses' home addn., etc. **$300,000.**

★**Ia., Burlington**—U. S. Constr. Co., c/o R. Silberstein, 210 Seventh St., Peoria, Ill., 300 unit housing. $1,500,000. J. Bauman, Davenport, archt.

★**Md., Baltimore**—Mercy Hospital, Calvert and Saratoga Sts., bids early in 1942 8 story, 100x200 ft. hospital addn. **$775,000.** Application filed with DPW. J. R. Edmunds, Jr., 409 Calvert Bldg., archt. CD 8/25—ENR 8/28.

★**Mass., Holyoke**—Owner, c/o Albro & Cronin, archts., 38 Chauncy Sts., Boston, soon lets contract 60 (ultimately 250) residences. Total est. $1,125,000. CD 10/10—ENR 10/16.

Neb., Bellevue — E. E. Peterson, 2819 S. 48 St., Lincoln, 58 cottages, south part city. $180,000. H. C. Stranathan, Lincoln, supt. constr.

★**N. J., Asbury Park**—Walter Reade, Inc., 701-7 Ave., New York, N. Y., recreational development, restaurant, cabanas, swimming pool, ice skating facilities, etc., Ocean Ave. $1,000,000.

N. J., Dover—Owner, c/o H. H. Lillien, archt., 215 E. 149 St., New York, N. Y., thirty-one 1½ story, bsmnt., 25x30 ft. frame homes. $155,000.

N. C., Charlotte—Queens College, W. H. Frazer, pres., 1900 Selwyn Ave., auditorium, power plant and remodeling music bldg. $385,000. Campaigning for funds.

O., Cleveland—Brookdale Building Co., A. Siegler, 3164 Ludlow Rd., plans by Col. K. I. Best, 1836 Euclid Ave., 25 brick, frame houses. $150,000.

O., Cincinnati—Geo. Hare & Son, 5730 Montgomery Rd., plans by G. Hare, archt. and engr., 5730 Montgomery Rd., 2 story, brick, cut stone apartment. $150,000.

O., Elyria—A. Bruscino, 15702 Braemer Dr., Cleveland, plans by A. G. Damon, 2141 Riverside Dr., Cleveland, 50 frame houses. $250,000. CD 11/12—ENR 11/20.

Pa., Pittsburgh—Sacred Heart Roman Catholic Parish, T. F. Coakley, pastor, Shady and Walnut St., E. Pittsburgh, sketches by Kaiser, Neal & Reid, 801 Keystone Bldg., 3 story, brick, hollow tile, limestone school, 280 ft. frontage. $200,000.

Tex., Houston—Wilkin-Parker Lumber Co., 801 Rosine St., 50 dwellings, Hyde Park Courts. $200,000.

Tex., San Antonio—Harlandale Housing Corp., 7109 S. Flores St., plans by E. Reed, 250 Quentin Dr., frame type dwellings. $150,000 or more.

Ont., Toronto—Owner, c/o Toronto General Trusts Corp., 253 Bay St., furniture store and warehouse, Yonge St. $150,000.

BIDS ASKED

Bids Asked After December 15

★**R. I., Newport**—Narragansett Housing Co., McAuley Apartments, 162 dwelling unit housing. $500,000. G. Iser, 109 E. 29 St., New York, N. Y., archt. Albro & Cronin, 38 Chauncy St., Boston, Mass., assoc. archts. CD 10/29—ENR 11/6.

Bids Asked December 16

Mass., Pittsfield—St. Joseph's Roman Catholic Parish, C. L. Foley, pastor, 414 North St., general contract 2 story, bsmnt., 160x180 ft. Conaty High School Maplewood Ave. Total est. $250,000. J. R. Hampson, 30 Backman Ave., archt. R. D. Kimball Co., 6 Beacon St., Boston, heating engrs. CD 12/1—ENR 12/4.

Bids Asked

Ill., Chicago—Calumet Garden Homes, Inc., 224 S. Michigan Ave., and L. I. Janik, archt., 343 S. Dearborn St., 51 brick, residences, Crandon and Bensley Aves. between 100 and 102 Sts. $200,000.

CONTRACTS AWARDED

★**Calif., Los Angeles**—Farrar & Dunbaugh, 9401 S. Sepulveda Blvd., 800 unit dwelling development, Sepulveda Blvd. between Imperial and Manchester Sts. Owner builds. About **$3,800,000.**

★**Calif., Los Angeles**—Nowell Building Co., 8540 Sepulveda Blvd., 500 wood, frame, stucco dwellings, Westport Heights, Manchester and Sepulveda Blvds. Owner builds. **$2,400,000-$3,000,000.**

Calif., Richmond—Modern Homes, Inc., 268 10 St., (1st unit), thirty 1 story, wood frame homes, day labor. **$150,000** or more ultimate expenditure.

★**Ill., Elmwood Park (Chicago)**—Ft. Dearborn Mortgage Co., 4400 W. Peterson Ave., Chicago, 200 one story, brick residences, separate contracts. About **$1,000,000.** G. Johnson, 1701 N. 76 St., Elmwood Park, archt.

Mass., Worcester—E. C. Erickson, 12 Taft St., Uxbridge, 50 frame homes, Upland St. Owner builds. **$250,000.** J. Swartz, 37 Derby St., archt.

★**Mass., Worcester**—J. Meines, 56 Midland St., 70 homes, Park Ave. and Sagamore St. Owner builds. **$700,000.** J. Swartz, 37 Derby St., archt.

N. J., Menlo Park—Menlo Park Homes, Inc., Lincoln Hy., forty-six 1 story bsmnt., 24x32 ft., frame residences, Wood Ave., separate contracts. **$207,000.** CD 11/25—ENR 11/27.

N. J., Raritan—Roosevelt Park Homes, Inc., Lafayette and 3 St., one hundred 2 story, bsmnt. residences, separate contracts. **$450,000.** G. E. Carman, 33 Clarendon Center, Metuchen, archt. CD 11/11—ENR 11/13.

N. Y., Clarence—Arondale Constr. Co., Arondale Rd., residences. Owner builds. **$150,000.** W. G. Lanphear, 11 Court St., Buffalo, archt.

O., Fairview (P. O. Cleveland) — **Fairview** Baptist Church, S. Cassell, pastor, 20876 Fairpark Rd., 1 story, 45x110 ft., brick, steel, concrete church, 1 story, 60x75 ft. sunday school, to James C. F. Shafer Co., 310 Caxton Bldg., Cleveland. Est. **$150,000.** E. A. French, Rob Roy Rd., Willoughby, archt.

Pa., Coatesville—Owner, c/o L. S. Chester, Jr., Wayne, residences, West Coatesville. Owner builds. **$200,000.** CD 7/16—ENR 7/24.

Pa., Duquesne — R. H. Loether, Route 51, Pittsburgh 10, Pa., thirty 1½ story, bsmnt., brick veneer, frame residences, Arden Ave., separate contracts. **$165,000.**

Pa., Honesdale—Comerford Theatre Corp., 207 Wyoming Ave., Scranton, theatre, separate contracts. Est. **$150,000.** CD 9/26—ENR 10/2.

Pa., Phila.—Chas. Hannigans Sons, 1447 Cayuga St., 69 residences. Owner builds. Over **$250,000.** C. H. Fries, 3701 N. Broad St., archt.

Pa., Phila.—C. H. Schilling, Rowland Ave., residences. Owner builds. **$200,000.** C. H. Fries, N. Broad St., archt. CD 9/29—ENR 10/2.

Tenn., Nashville—Crescent Amusement Co., 6 and Church Sts. brick, concrete theatre and store, Franklin Rd., to Sumner Constr. Co., N. 151½ 4 Ave. N., about **$200,000.** CD 11/12—ENR 11/20.

★**Va., Alexandria**—Metropolitan Life Insurance Co., 1 Madison Ave., New York, N. Y., housing, incl. 1,800 two story, brick or local stone residences, northern sect. city, bounded by Seminary Hill, Four Mile Run and Beverley Hills, to Starrett Bros. & Eken, Inc., 63 Wall St., New York, N. Y. Est. **$7,000,000.** Leonard Schultze & Associates, 18 E. 48 St., New York, N. Y., archts.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Long Beach—CANNERY—Calif. Sea Food Co., Inc., 1275 W. 7 St., fish cannery, Channel 2, off 7 St., and west of Pico St. $250,000.

Calif., Oakland — PLANT — Oliver United Filters, 2900 Glascock St., plant addn. **$40,000.**

Calif., San Francisco—STORAGE UNIT—J. P. Murphy Corp., 3901 Mission St., steel storage unit. **$40,000.**

Calif., San Francisco—FOUNDRY — Pacific Fdry. Co., 3100 19 St., foundry expansion and storage units. **$40,000.**

Calif., San Francisco—WAREHOUSE—Universal Rubber Corp., 938 Harrison St., warehouse addns. $40,000.

Conn., Bridgeport — POWER PLANT — United Illuminating Co., 1119 Broad St., brick, steel, concrete power plant, steam plant exten., Steel Point Station, incl. high pressure boilers. Over $40,000. Westcott & Mapes, Inc., 139 Orange St., New Haven, Conn., engrs.

Conn., Stamford — WAREHOUSE — John Ferro, Inc., 26 Chapel St., plans completed by F. S. Massari, 200 Atlantic St., 1 story, 80x200 ft., brick, steel, concrete warehouse, Meadow St. $45,000.

★**La., Lake Charles**—PLANT—Continental Oil Co., Lake Charles, chemical plant to manufacture toluene, $5,000,000, in connection with refinery at Westlake across river from here; refinery addn., incl. 2 additional towers, $375,000.

†Md., Fairfield (Sta. Baltimore) — POWER HOUSE and GARAGE — Maryland Drydock Co., bids soon, 1 story, 30x40 ft. power house and 1 story, 40x90 ft. garage, brick, steel, concrete fdn. $60,000. J. E. Greiner Co., 1201 St. Paul St., Baltimore, engrs.

Mass., Newton (br. Boston)—FACTORY—Zenith Products Co., 58 Chestnut St., plans by D. Des Granges, 49 Federal St., Boston, 1 story, brick, cast stone factory, concrete fdn. Over $40,000.

Mass., Somerville—PLANT — New England Dressed Meat & Wool Co., 174 Somerville Ave., soon lets contract veal cutting plant, etc., Somerville Ave.

Mass., Springfield — FACTORY — Westinghouse Electric & Mfg. Co., Constr. Dpt., Union Bank Bldg., Pittsburgh, Pa., soon lets contract 2 story, 82x284 ft. Factory L replacement, Page Blvd. $75,000. CD 11/25—ENR 11/27.

Mo., North Kansas City—PLANT—Continental Can Co., Lydia and Guinotte Sts., Kansas City, Mo., plant, on site bounded by 10 Ave., city limits, County Road and Burlington Tracks. Over $150,000.

N. J., East Rutherford—WAREHOUSE—Trubak Laboratories, State Hy. 2, brick, steel alterations and addns., new warehouse, to chemical plant, State Hy. 2. Over $40,000.

N. J., Newark—PLANT—Federated Metals, 150 St. Charles St., 1 story, brick, steel, concrete block electric precipitation plant, St. Charles St. $50,000.

N. Y., Byron—FACTORY—Haxton Canning Co., W. Walls, asst. secy., Oakfield, rebuilding 3 story canning factory, recently destroyed by fire. $40,000.

Pa., Beaver — PLANT — Superior Steel Products Co., Beaver, plant. $75,000.

Pa., Elizabethville—PLANT—Swab Wagon Co., Elizabethville, rebuilding motor truck body plant, recently destroyed by fire. Over $40,000.

Pa., Franklin—FACTORY — Chicago Pneumatic Tool Co., 191 Howard St., new bids soon, factory. $225,000. Former bids rejected. CD 11/11—ENR 11/13, under BA.

Pa., Homestead—PLANT—John Gedris & Sons Co., J. Gedris, Sr., pres., McClure Ave., plans by T. Piatt, 828 E. 11 St., 2 story, bsmnt., 60x110 ft., brick, hollow tile plant, West Homestead. $40,000.

Pa., Phila.—BOTTING PLANT—Philadelphia Coca Cola Bottling Co., 33 and Reed Sts., bids soon bottling plant. F. H. Hahn, 1700 Walnut St., archt. CD 7/30—ENR 8/7.

Pa., Pittsburgh—PLANT—Imler Supply Co., J. W. Imler, pres., 1106 Chestnut St., NS Pittsburgh, rebuilding 6 and 7 story, bsmnt. tin plating and retinning process bldg., 1106 Chestnut St.

Pa., Warren—PLANT—Warren Food Lockers, 325 Penn Ave. W., frozen food storage plant. $40,000.

Pa., York—PLANT—H. J. Williams Co., Inc., York, limestone quarrying and distr. plant, 168 acre site, West Manchester Twp., near here. Over $40,000.

S. C., Sumter—DRY KILN, etc.—Brooklyn Cooperage Co., P. Handte, genl. mgr., Sumter, rebuilding stave dry kiln and stave joining room, recently destroyed by fire. Over $150,000.

Tenn., Nashville—MILL—J. R. Raible Coop. Co., 464 Chestnut St., rebuilding mill. $40,000 incl. equip., machinery.

Tex., Humble — PLANT — Baytown Co-operative Assn., c/o C. C. Foster, Pelly, co-operative stores and storage plant. $45,000.

Alta., Calgary — PLANT — General Petroleums Kinsella, Ltd., c/o Shouldice & Macdonald, attorneys at Law, Calgary, plant. $50,000.

Alta., Calgary—PLANT—Major Oil, Gas & Water, Ltd., c/o Harrie & Arnold, attorney's at law, Calgary, plant. $50,000.

Alta., Edmonton—PLANT—Thermo Anti-Freeze Co. Ltd., c/o L. Pekarsky, barrister, Edmonton, antifreeze, etc. mfg. plant. $40,000.

Alta., Fort McMurray—PLANT—Abasand Oils Ltd., Fort McMurray, boiler house, machines shops, separation plant and laboratory. $200,000.

B. C., Barnet—PLANT—Bestwood Cedar Shingle Co. Ltd., Barnet, shingle mill and allied plant. $40,000.

B. C., Keremeos—CANNERY—C. W. Gough, Keremeos, cannery and equip. $40,000.

B. C., Ocean Falls—SAW MILL, etc.—Pacific Mills Ltd., Ocean Falls, sawmill exten., storage flume, chlorination tower, etc. $200,000.

B. C., Port Moody—PLANT—Thurston-Flavelle Ltd., 7 Murray St., plant exten. $60,000.

B. C., Vancouver—DRY KILNS—E. L. Sander, Ltd., 191 W. 1 Ave., rebuilding dry kilns, timber on concrete piles, exten. planing mill, dock exten., etc. $40,000.

Man., Winnipeg—PLANT—Stewart Electric Co., Ltd., c/o H. B. Monk, 426 Somerset Bldg., plant. $40,000.

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.)

N. S., Port Williams—PLANT—G. A. Chase, Port Williams, 80x200 ft., apple dehydrating plant. $45,000.

Ont., Clarkson—PLANT—Clarkson Basket Co. Ltd., c/o W. Izatt, plant reconstruction. $40,000.

Ont., Durham — MILL, etc. — MacGowan Bros., chopping mill, elevator and power plant. $40,000.

Ont., Hamilton—PLANT—Hutton & Souter, archts., 36 James St. S., soon lets contract 3 story, bsmnt., 70 x 200 ft., rein.-con. lamp plant addn., for Canadian Westinghouse Co., 256 Sanford Ave. $185,000.

Ont., Hamilton—PLANT—Procter & Gamble Co. of Canada, Ltd., Burlington St., bids soon plant, Burlington Ave. E. $42,000.

Ont., Kenora—PLANT—Kenora Paper Mills Ltd., Kenora, remodeling portion plant. $40,000.

Ont., Kitchener—FACTORY—B. F. Goodrich Rubber Co., 251 King St., plans by Prack & Prack, 36 James St., Hamilton, 1 story, 120x130 ft., brick, steel factory addn. $100,000.

Ont., Leaside—PLANT—Allcock, Laight & Westwood Co. Ltd., J. B. Kennedy, mgr., 230 Bay St., Toronto, bids soon, plant. $60,000.

Ont., London — MILL — London Hosiery Mills, W. Baker, genl. mgr., Adelaide St., 1 story, brick mill addn. $45,000.

Ont., Mine Centre—MINING PLANT—Sover Gold Ore Milling Co., Ltd., 175 Hammersmith Ave., Toronto, mining plant and bldgs. $50,000.

Ont., St. Thomas—PLANT—Canada Vitrified Products, Ltd., 21 Talbot St., plans by J. T. Findlay, 17 Hincks St., plant addn. $40,000.

Ont., Sudbury—BAKERY, etc.—Geo. Weston Bread & Cakes, Ltd., 618 Dupont St., Toronto, bakery and confectionery plant. $50,000.

Ont., Toronto—PLANT—Arnphenol Ltd., c/o M. A. Wilson, 302 Bay St., machinery mfg., etc. plant. $40,000.

Ont., Toronto — PANT — Canada Packers Ltd., 7 St. Clair Ave., plans by Arthur Fleury & Piersol, 9 Elm St., 1 story, 55x230 ft., brick, garage and repair shop, concrete fdn. $45,000. CD 10/23—ENR 10/30.

Ont., Toronto—PLANT—Dominion Gasket & Mfg. Co. Ltd., c/o H. S. Rosenberg, 85 W. Richmond St., plant. $40,000.

Ont., Toronto—PLANT—Dominion Glues, Ltd., c/o E. A. Harris, 26 W. Adelaide St., plant. $40,000.

Ont., Toronto—PLANT—A. W. Flint Co. Ltd., 377 Carlan St., plant exten.

Ont., Toronto—PLANT—Ontario Vitamin Oils Ltd., c/o T. M. Mungovan, 80 W. Richmond St., fish, vegetable and animal oils, etc., mfg. plant. $40,000.

Ont., Toronto — PLANT — Rusk Porcupine Mines, Ltd., c/o W. R. Salter, 112 Yonge St., mining, milling and reduction plant. $50,000.

Ont., Wallaceburg—CREAMERY—Lambton Kent Creameries, F. K. Stratton, genl. mgr., Wallaceburg, bids about end of January, 2 story, bsmnt., 65 x 125 ft. brick creamery. $50,000.

Ont., Willowdale—POWER PLANT—North York Hydro Comn., Willowdale, power plant exten. $40,000. Hydro-Electric Power Comn. of Ontario, 620 University St., Toronto, engrs.

Que., Granby—FACTORY—Electrical Trading Co. Ltd., Sun Life Bldg., Montreal, factory. $40,000.

Que., Hull — PLANT — Hull Iron & Steel Foundries Ltd., 14 Montcalm St., plans by Richards & Abra, 55 Metcalfe St., Ottawa, Ont., plant exten. $40,000.

Que., Lachine—PLANT—T. Pringle & Son, Ltd., 485 McGill St., Montreal, soon let contract 2 1/2 story, 46x98 ft., brick, concrete, steel office bldg. addn. at plant for Canadian Allis-Chalmers, Ltd., 25 St. Joseph St. $50,000. W. Dryer & T. Pringle & Son, Ltd., 485 McGill St., Montreal, engrs. CD 10/14—ENR 10/16.

Que., Lachute Mills — PLANT — Dominion Shuttle Co. Ltd., Lachute Mills, altering, constructing plant exten. $40,000.

Que., Lakefield — PLANT — Nepheline Products Ltd., Lakefield, plant. $70,000.

Que., Megantic—PLANT—Megantic Industries, Ltd., Megantic, manufacturing plant. $40,000.

Que., Montreal—PLANT—Associated Paper Mills, Ltd., 6744 Hutchison Ave., takes bids soon plant addn. $85,000. incl. equip.

Que., Montreal—FACTORY—Quebec Converters, Ltd., c/o J. J. Harold, 5613 Queen Mary Rd., Hampstead, factory.

Que., Montreal—PLANT—Wales Industries, Ltd., c/o J. Briydges, 4330 Girouard Ave., plant.

Que., Montreal—FACTORY—Wolafsky Dress Co. Ltd., c/o Z. M. Wolasky, 5562 Woodbury St., factory. $40,000.

Que., Mount Royal (P. O. Montreal)—PLANT—Canadian Marconi Co. Ltd., 2440 Trenton Rd., bids soon plant addn. $50,000.

Que., St. Hilaire — REFINERY — Richelieu Beet Sugar Co. Ltd., St. Hilaire, and G. R. Richer, archt., 242 Girouard Blvd., St. Hyacinthe, soon lets contract 60x360 ft. rein.-con., brick warehouse. $70,000. Also plans later, factory, warehouse, dryer and boiler room. $300,000-$350,000.

Sask., Saskatoon — FOUNDRY — East Iron Wks. Ltd., 14 C Ave., foundry, etc., exten. $40,000.

BIDS ASKED

Bids Asked December 16

N. C., Charlotte—WAREHOUSE—Piedmont & Northern Ry. Co., 422 S. Church St., 4 story, rein.-con. warehouse addn., 817 West Hill St., for Great Atlantic & Pacific Tea Co., 817 W. Hill St., $100,000. W. S. Lee Eng. Corp., 422 S. Church St., engrs.

Bids Asked December 19

Wis., Kaukauna — POWER PLANT — Kaukauna Utilities Comn., Kaukauna, H. F. Weckwerth, mgr., 40x50 ft., rein.-con. power plant addn. Mead, Ward & Hunt, Madison, engrs.

Bids Asked

Mass., Mansfield—GRINDING PLANT—Bay State Tap & Die Co., Chauncy St., 1 story, brick, steel grinding plant addn., incl. office. $40,000. F. B. Mitchell, 9 Mechanic St., Foxboro, engr.

N. J., Newark—FACTORY—U. S. Industrial Chemicals, Inc., 390 Doremus Ave., altering 2 story, 100x145 ft. Mfg. Bldg. 23, Doremus Ave. $75,000.

O., Cleveland—FACTORY—Arcrods Corp., R. Rogers, production mgr., 4437 E. 49 St., 1 and 2 story, 96x292 ft., brick, steel, factory addn. F. B. Adams, in charge, c/o owner, at Sparrows Point, Baltimore, Md.

CONTRACTS AWARDED

Calif., Gilroy—FACTORY—Be-Ge Mfg. Co., A. Gurries, pres. and genl. mgr., Gilroy, factory annex, to W. Radtke, 4 and Princeville Sts., **$42,500.**

Calif., Marysville—PLANT, etc.—Coca Cola Bottling Co., 551 Yolo St., Yuba City, coca cola bottling plant and warehouse, to H. W. Robertson, 3004 F St., Sacramento, **$45,000.** CD 5/22—ENR 5/29.

Calif., Oakland—WAREHOUSE—Calif. Wire Cloth Corp., 1001-22 Ave., warehouse addns., to Christensen Co. and W. E. Lyons, 3454 Harlan St. **$45,200.**

Calif., Oakland—MACHINE SHOP—J. W. Ferguson, 41 Rosemount St. San Leandro, concrete machine shop, day labor. **$40,000** incl. equip.

Calif., Richmond—WAREHOUSE—United Grocers, Inc., wood frame warehouse, to F. C. Hosking, 541 Civic Center, **$41,650.** CD 9/19—ENR 9/25.

Del., Edge Moor—FACTORY—Edge Moor Iron Wks., Inc., Edge Moor, factory, to John E. Healey & Sons, 707 Tatnall St., Wilmington. Est. **$100,000.**

Del., Wilmington—WAREHOUSE—Ralston-Purina, 4 and Pine Sts., 2 story, 95x204 ft. warehouse, to John E. Healey & Sons, 707 Tatnall St. Est. **$50,000.**

Ill., Chicago—FACTORY—Aetna Ball Bearing Co., 4600 Schubert Ave., 1 story, brick, concrete factory addn., 4600 Schubert Ave., to Wm. J. Scown, 54 W. Randolph St. Est. **$40,000.**

Ill., Chicago—PLANT—Armour & Co., Union Stock Yards, 1 story, 90x150 ft., brick, rein.-con. plant, 4240 S. Racine Ave., to Vogtborg Constr. Co., 251 W. 79 St.

★**Ill., Dixon** — PLANT — Illinois Northern Utilities Co., Dixon, generating plant to house 50,000 kw. turbo-generator, separate contracts, **$6,000,000.** Sargent & Lundy, 140 S. Dearborn St., Chicago, engrs. CD 11/26—ENR 12/4.

Md., Baltimore — FACTORY — Cross & Blackwell, 6801 Eastern Ave., 3 story, 40x100 ft., steel, brick, concrete factory addn., to Consolidated Eng. Co., 20 E. Franklin St., **$40,000.** L. R. White, Jr., 10 W. Chase St., archt. CD 4/14—ENR 4/17.

Md., Baltimore—BUS TERMINAL—Pennsylvania Greyhound Lines, E. 9 St. and Superior Ave., Cleveland, O., 2 story, brick, concrete bus terminal, to Cummins Constr. Co., 803 Cathedral St. Est. **$350,000.** Wischmyer, Arrasmith & Elswick, Heyburn Blvd., Louisville, Ky., and Roldman F. Dressler, 11 S. LaSalle St., Chicago, Ill., engrs. CD 11/25—ENR 11/27.

Md., Sparrows Point (br. Baltimore)—FACTORY—Arcrods Corp., Sparrows Point, 1 story, 80x200 ft., brick, steel, corrugated iron factory addn., concrete fdns., to Consolidated Eng. Co., 20 E. Franklin St., Baltimore. **$60,000.**

Mass., South Boston (sta. Boston)—FACTORY—Cole-Hersee Co., 54 Old Colony Ave., 1 story, bsmnt., 60x125 ft. and 20x45 ft. wing, brick factory, Baxter and C Sts., to J. S. Mozzicato, 168 Mystic Ave., Madford, **$50,000.** D. J. Abrahams, 260 Tremont St., Boston, archt.

Mass., Worcester—PLANT—Wyman-Gordon Co., 105 Madison Ave., 1 story, 98x280 ft. heat treating plant, Bradley St., 1 story, 35x55 ft. hospital, Gold St., both, brick, steel, to E. J. Cross Co., 150 Prescott St., **$155,400.**

Mich., Detroit—FACTORY—Impression Die Co., Forest St. and Bellevue Ave., 1 story, brick, concrete, steel factory, to F. H. Martin Constr. Co., 955 E. Jefferson Ave. Est. **$45,000.** Pollmar, Ropes & Lundy, 2539 Woodward Ave., archts.

Mich., Ecorse (br. Detroit)—FACTORY, etc.—Great Lakes Eng. Wks., Ecorse, 1 story, 25x40x273 ft., brick, cinder block, steel, concrete factory and office addn., to Barton-Malow Co., 2631 Woodward Ave., Detroit. Est. **$40,000.** CD 7/22—ENR 7/24.

Mo., St. Louis—SERVICE—A. R. Lindburg, Inc., 3556 Lindell Blvd., 1 story, 70x100 ft., brick automobile service bldg., Lindell Blvd. near Grand Blvd., to Wilkins & Philippi, 215 North 7 St. Est. **$40,000** plus, with equip. H. K. Graf, 2825 Olive St., archt.

N. J., East Rutherford—SUB-STATION—Pub. Serv. Electric & Gas Co., 80 Park Pl., Newark, altering brick, steel, repair substation, to Edward M. Waldron, Inc., 40 Park Pl., Newark, **$45,000.** Bids 12/1. CD 12/1—ENR 12/4.

N. J., Jersey City—WAREHOUSE—Erie R.R. Co., I. H. Schram, engr. maintenance and ways, foot of Pavonia Ave., rebuilding warehouse, to G. Siegler Co., 26 Journal Sq. **$250,000.** CD 8/13—ENR 8/21.

N. Y., Niagara Falls—PLANT—National Carbon Co., Inc., Hyde Park Blvd., 59x117 ft. and 42x113 ft. plant bldgs., to De Hamel Constr. Co., 814 Citizens Bldg., Cleveland, O. Est. over **$40,000.** Bids 11/28. CD 11/26—ENR 12/4.

N. Y., Niagara Falls—PLANT—Vanadium Corp. of America, Saunders Settlement Rd., 1 story, 50x180 ft. and 50x405 ft., plant bldgs., to Walter S. Johnson Bldg. Co., 2532 Hyde Park Blvd., est. **$125,000.**

N. Y., Rochester—STORAGE—Symington Gould Corp., 20 Symington Pl., storage bldg., to A. Friederich & Sons Co., 710 Lake Ave. Est. **$50,000.** CD 11/3—ENR 11/6.

N. J., North Bergen — WAREHOUSE — Bushell Co., 201 10 St., Jersey City, 1 story, 40x60 ft., brick, concrete block warehouse and 1 story, irregular sized, concrete block machine bldg., Tonnelle Ave., to V. Stigland, 532 51 St., West New York. **$40,000.** CD 10/15—ENR 10/23, under CA.

N. J., Trenton—PLANT—DeLaval Steam Turbine Co., Nottingham Way, Hamilton Twp., Trenton, 4 story, industrial bldg., to John W. Ferguson Co., 152 Market St., Paterson, **$52,500.** Awarded 11/28.

N. Y., Brooklyn—MACHINE SHOP—H. M. Sushan, engr., 367 Fulton St., 1 story, 76x95 ft. machine shop, 90 Fulton St., for Cameron Machine Co., 61 Poplar St., to T. L. Rubaumen, 9050 Parsons Blvd., Jamaica. **$40,000.** Bids 11/17. CD 11/14—ENR 11/20.

O., Cleveland—FACTORY—Pioneer Mold Co., G. F. Langewier, mgr., 4020 Bway., 1 story, 40x100 ft., brick, steel factory, to R. J. Platten Co., W. 25 St. and Scranton Rd. Est. **$40,000.**

O., Marysville—FACTORY—Jiffy Join, Inc., Marysville, 165x195 ft. factory, to A. L. Rhoads Constr. Co., Washington Court House. **$40,000.**

Pa., Johnstown—POWER PLANT—Bethlehem Steel Co., Locust St., 1 story, brick, steel, concrete power plant addns., imprvs., to Wilson Constr. Co., 305 Bedford St. Est. **$100,000.** CD 9/23—ENR 9/25.

Pa., Phila. — PLANT — Bigler Chemical Corp., Delaware Ave., 8 story, 56x128 ft. plant, to S. H. Levin, 1619 Sansom St. Est. **$350,000.** Silverman & Levy, Architects Bldg., archts.

Pa., Phila.—FACTORY—McNeil Laboratories, Inc., 17 and Cambria Sts., 4 story, 97x126 ft. factory, to Barclay White Co., 22 N. 36 St. Est. **$75,000.** C. E. Wunder Assoc., Architects Bldg., archts.

Wash., Bremerton—BOTTLING PLANT—Coca Cola Co., 310 North Ave. N.W., Atlanta, Ga., bottling plant, to Teufel & Carlson, Skinner Bldg., Seattle. Est. **$42,500.** C. Iverson, c/o contractor, archt. CD 11/18—ENR 11/27.

Wis., Appleton—LABORATORY—Institute of Paper Chemistry, 1101 E. South River St., 2 story, bsmnt., 40x123 ft., stone, block laboratory addn. for machine bldg., concrete fdn., to Ben B. Ganther Co., 78 State St., Oshkosh. CD 9/30—ENR 10/2.

Wis., Milwaukee—BOILER HOUSE—A. O. Smith Corp., 3533 W. 27 St., masonry and concrete work 1 story, 70x102 ft., brick, steel, boiler house, concrete fdn., to Hunzinger Constr. Co., Station K. E. W. Burgess, c/o owner, engr. Bids 12/3.

Ont., Kitchener—MACHINE SHOPS—Sehl Eng. Co., Mill St., H. J. Sehl, genl. mgr., 1 story, brick, 80x100 ft., brick machine shops, to Ball Bros., 49 King St. E. Est. **$40,000.** Awarded 11/25.

Ont., Kitchener—ICE PLANT—Blue Top Brewing Co., King St. W., 1 story, 40x40 ft., ice plant addn., brick, own forces. **$40,000.** Awarded 11/26.

Ont., Toronto—PLANT—Mine Safety Appliances Co. of Canada, Ltd., 637 Craig St., W., Montreal, Que., plant exten., Kendal Ave., to Teagle & Son, 4 New St., Est. **$40,000.** Prack & Prack, Pigott Bldg., Hamilton, archts.

Ont., Windsor—PLANT—Ford Motor Co. of Canada, Ltd., East Windsor, plant exten., to Woodall Bros., 1922 E. Wyandotte St., Walkerville. Est. **$40,000.** Sheppard & Mason, 52 W. Chatham St., archts.

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Bids: December 22 (697)

Water Main

CONTRACT 72
CONSTRUCTING THE RESERVOIR 6—FERN STREET CROSS-CONNECTION LINE

SEALED PROPOSALS addressed to The Board of Contract and Supply of The Metropolitan District and endorsed "PROPOSAL FOR THE CONSTRUCTION OF THE RESERVOIR 6—FERN STREET CROSS-CONNECTION LINE IN THE TOWN OF WEST HARTFORD, CONNECTICUT", will be received at the Executive Office of The Metropolitan District at the Municipal Building, 550 Main Street, Hartford, Connecticut, until 2:15 o'clock P. M., Eastern Standard Time, Monday, December 22, 1941, at which time and place they will be publicly opened and read.

After the bids are opened and read they will be taken under advisement and the award of the contract, if awarded, will be made as soon thereafter as practicable.

The work to be done includes furnishing and installing material for about one (1) mile of pipe line starting at a branch in the present Reservoir 6—Reservoir 5 Pipe Line in Canal Road about 8,000 feet south of Albany Avenue and extending about 3,400 feet in an easterly direction in an easement across private property to Mountain Road and then about 1,600 feet in a southerly direction along Mountain Road to a branch in the present Fern Street Pipe Line at Fern Street.

Alternate proposals will be considered on the basis of 30-inch reinforced concrete cylinder pipe and 31½-inch electrically welded steel pipe, double dipped in asphalt enamel.

Plans and specifications may be obtained on and after December 8, 1941, at the Office of the Manager and Chief Engineer of The Water Bureau of The Metropolitan District, 1026 Main Street, Hartford, Connecticut, on deposit of five dollars ($5), in cash or certified or cashier's check, made payable to The Water Bureau of The Metropolitan District, which amount will be refunded if both are returned in good order within one month of date of opening of bids. No deposits will be refunded after that time. Specifications used in making a bid will be considered as returned.

Original scale blueprints may be obtained, if desired, at no charge.

Each proposal must be accompanied by a certified or cashier's check for an amount covering not less than ten per cent. (10%) of the total amount bid, made payable to The Metropolitan District, and a satisfactory surety bond, as stated in the Information for Bidders, for the total amount bid will be required of the successful bidder for the faithful performance of the contract.

The right is reserved to accept any bid, whether or not the lowest, or to reject any or all bids as the interest of the District may appear to require.

THE METROPOLITAN DISTRICT
BOARD OF CONTRACT AND SUPPLY,
By: Richard Dillon, Clerk.
Hartford, Connecticut,
November 25, 1941.

Bids: December 23 (711)

Dam and Reservoir

WATERBURY, CONN.
DEFENSE PUBLIC WORKS PROJECT
NO. CONN. 6-101
BOARD OF PUBLIC WORKS,
CITY OF WATERBURY, CONNECTICUT

Sealed proposals for the construction of Pitch Reservoir will be received by the Board of Public Works of the City of Waterbury, at its office in the City Hall until 8 o'clock P.M. Eastern Standard Time, on Tuesday, December 23, 1941, at which time they will be publicly opened and read aloud.

The work to be done includes the construction of a compacted earth dam with concrete spillway and appurtenant work. The dam is located in the Town of Morris, north of the existing Morris Reservoir. It is approximately 1,150 feet long and 95 feet high above the stream bed.

Each proposal must be accompanied by a certified check for not less than 10% of the bid and drawn to the order of the Director of Purchases of the City of Waterbury, said check to be returned to the bidder unless forfeited as stipulated on the proposal forms.

The successful bidder at the time of the execution of the contract must deposit with the Board of Public Works a satisfactory surety bond for faithful performance of the contract in an amount equal to the amount of the contract award.

The Board reserves the right to reject any or all proposals or to accept any bid, should the Board deem it to be for the best interest of the City.

Plans, contract and specifications may be obtained by intending bidders or their accredited representatives applying at the office of the Bureau of Engineering, City Hall, Waterbury, Connecticut or at the office of Malcolm Pirnie, 25 West 43rd Street, New York City, on deposit of twenty-five dollars ($25.00), which sum will be refunded to those submitting bids upon return of the plans and specifications in good condition within ten (10) days after award of contract. Non-bidders will receive a refund equivalent to their deposit less the cost of reproduction of drawings.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within thirty (30) days after the actual date of the opening thereof.

Office of the Board of Public Works
City Hall
Waterbury, Connecticut
CHARLES A. ROOT,
City Engineer

Bids: December 18 (710)

State Highway Work

STATE DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
ALBANY, N. Y.

Sealed proposals will be received by the undersigned at the State Office Building, 13th Floor, ALBANY, N. Y., until one o'clock P.M., on THURSDAY, DECEMBER 18, 1941, for the construction and reconstruction of the following highway projects and grade crossing elimination:

County	Deposit for plans	Bid deposit	Type	Miles	Pref. Rating
			RECONSTRUCTION		
Broome....	$10	$25,000	24' Concrete 8"...	3.75	A-4 Serial 438-E
Cayuga.... (Cons. & Recons.)	10	28,500	28' Concrete 8"—Slab Br. Three 21' spans.	4.48	A-4 Serial 438-E
Livingston.	20	44,000	24' Concrete 8" 7" 8"; Misc. Work 3 span Girder; total length 401' 40' I-Beam Br.; 25' Slab Br. Widen 21' Slab Br.....	7.83	A-7 A-3
Steuben...	5	4,500	30' I-Beam Br. 22' Concrete 8" 7" 8" Appr. Misc. Work.	0.19	Serial 454-E
			GRADE CROSSING ELIMINATION		
Montgomery	5	9,500	100' Girder Elim. Struct. 22' Concrete 8" Appr....	0.20	A-7

Maps, plans, specifications, and estimates may be obtained at the office of the Division of Highways, Albany, N. Y., and at the office of the District Engineers in whose districts the roads are located. The addresses of the District Engineers and the counties will be furnished upon request. Plans may be seen at the office of the State Department of Public Works, State Office Building, Worth and Center Streets, New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds.

Proposal for each contract must be submitted in a separate sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Division of the Treasury," for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated.

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Broome.....	$.75	$.62½	$.62½
Cayuga.....	.75	.55	.50
Livingston.....	.75	.55	.50
Montgomery.....	.75	.55	.55
Steuben.....	.75	.60	.60

Unless shown otherwise in the itemized proposal for each project.

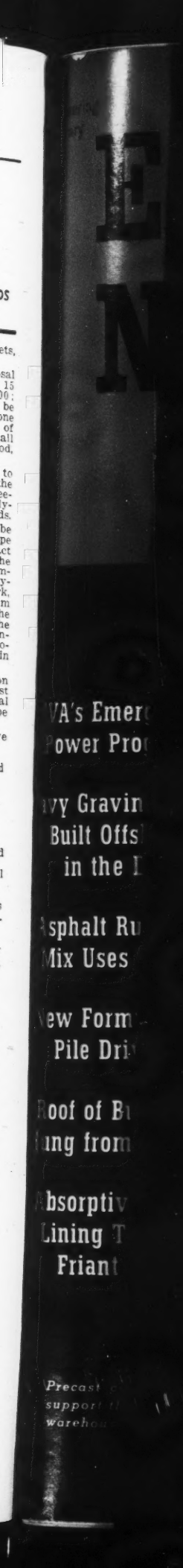
The right is reserved to reject any or all bids.

A. W. BRANDT
Supt. of Public Works

U. S. Government

U. S. ENGINEER OFFICE, P. O. Box 59, Louisville, Ky. Sealed bids will be received here until 11:00 a.m. C.S.T., January 7, 1942, and then opened for *construction of Flood Protection Works, Pumping Plants, Paducah, McCracken County, Kentucky.* $10 deposit required for plans. Plans may be seen at U. S. Engineer Offices: Third and Washington Streets, Paducah, Kentucky, and 612 Federal Building, Louisville, Kentucky. Further information on application. (725)

WAR DEPARTMENT: United States Engineer Office, Galveston, Texas. Sealed bids will be received until 2:00 P.M., January 8, 1942, and then publicly opened for furnishing all labor and materials and performing all work for *removal of wrecks* (one ship, seven barges, and one tug) from the Sabine River adjacent to Orange, Texas. Further information on application. (727)

CONSTRUCTING QUARTERMASTER. Camp Claiborne, P. O. Box 1310, Alexandria, La. Sealed bids will be received until 11:00 A.M., C.S.T., December 18, 1941, and then publicly opened for the *construction and completion of troop housing facilities* for one Medical Sanitary Company and one Quartermaster Truck Company, including all necessary utilities, roads, sidewalks, grading and appurtenances thereto comprising ten buildings and forty-nine hutments at Camp Claiborne, La. Deposit $25.00 required for plans in the form of certified check payable to Treasurer of the United States. Further information upon application. (731)

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